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**MBA PROFESSIONAL REPORT**

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## **GENDER INTEGRATION ON U.S. NAVY SUBMARINES: VIEWS OF THE FIRST WAVE**

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**June 2015**

**By: Krysten J. Ellis  
Garold I. Munson**

**Advisors: Kathryn J. Aten  
Gail F. Thomas  
Mark J. Eitelberg**

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FIRST WAVE**

Krysten J. Ellis, Lieutenant Commander, United States Navy  
Garold I. Munson, Lieutenant, United States Navy

Submitted in partial fulfillment of the requirements for the degree of

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June 2015**

Authors: Krysten J. Ellis

Garold I. Munson

Approved by: Kathryn J. Aten

Gail F. Thomas

Mark J. Eitelberg

William R. Gates, Dean  
Graduate School of Business and Public Policy

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# **GENDER INTEGRATION ON U.S. NAVY SUBMARINES: VIEWS OF THE FIRST WAVE**

## **ABSTRACT**

This project is an ethnographic case study documenting the experiences of the first group of women integrated into the United States Submarine Force. The study seeks to: 1) document the process through which each of the women was selected and became a submariner; 2) identify hindering and supporting issues and concerns (e.g., life-work balance, job-role expectations, and career development); 3) describe the organizational culture and cultural change drivers; 4) identify and describe how the women's experiences affected both their professional and personal lives; and 5) identify the benefits of gender integration for the submarine force as expressed by the women integrated.

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## LIST OF ACRONYMS AND ABBREVIATIONS

AWEPS	Assistant Weapons Officer
BCP	ballast control panel
CO	Commanding Officer
COB	Chief of the Boat
COMMO	Communications Officer
COW	Chief of the Watch
CPO	Chief Petty Officer
CRA	Chemistry/Radiological Controls Assistant
DACOWITS	Defense Advisory Committee on Women in the Services
DH	Department Head
DINQ	delinquent
DO	Division Officer
DOD	Department of Defense
DOOW	Diving Officer of the Watch
EA	Electrical Assistant
EDO	Engineering Duty Officer
ELT	Engineering Laboratory Technician
EMBT	emergency main ballast tank blow (system)
ENG	Engineer Officer
EOOW	Engineering Officer of the Watch
ICBM	intercontinental ballistic missile
JO	junior officer
LPO	Leading Petty Officer
MEDEVAC	medical evacuation
MPA	Main Propulsion Assistant
NAV	Navigation Officer
NR	Naval Reactors
NROTC	Naval Reserve Officer Training Corps
NUB	non-useful body

OOD	Officer of the Deck
PCO	Prospective Commanding Officer
PD	periscope depth
PDTP	pre-deployment training period
PNEO	Prospective Nuclear Engineer Officer
RCA	Reactor Controls Assistant
ROTC	Reserve Officer Training Corps
SDO	Ship's Duty Officer
SLBM	submarine launched ballistic missile
SOBC	Submarine Officer Basic Course
SODHC	Supply Officer Department Head Course
SSBN	ballistic missile submarine nuclear
SSGN	guided missile submarine nuclear
SSN	attack submarine nuclear
TSO	Tactical Systems Officer
WAAC	Women's Army Auxiliary Corps
WAVES	Women Accepted for Volunteer Emergency Service
WEPS	Weapons Officer
XO	Executive Officer

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From Krysten:

I would be remiss in not thanking my parents and family. My father is a submariner, naval officer, and my first hero. Growing up with the submarine family is what pushed me toward achieving my dream of being assigned to a sub. My mother was in the Army when she married my father. She instilled in me the fiercest determination and independence that promoted self-reliance and stubbornness. Though we do not have the relationship I would like, I also would not be who I am without her. To both of you

and the rest of my extended family, thank you for drawing me to the sea and supporting me through the storms of life. Last but not least, a special thanks to my “Brothers and Sisters of the “Phin.” While I will never return to our underwater playground, you will always hold a portion of my heart for your sacrifice and dedication to one another, including me. Never in a million years could I imagine my dream coming true, but it did. It was amazing, it was horrible, but most of all — it *was*.

From Garold:

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## **I. INTRODUCTION**

In February 2010, Defense Secretary Robert Gates notified Congress of the Navy's intent to remove the ban on women serving on submarines (The Associated Press, 2010), essentially launching the Women in Submarines program. At the time of the announcement, and with congressional approval, news organizations reported "the Navy's historic decision to allow women to serve on board submarines, opening the deep seas to one of the final frontiers for women in the U.S. military" (Williams, 2010). By the fall of 2011, the first 24 female officers reported for duty on four submarines, two on each U.S. coast, amid both controversy and support.

The present study seeks to collect and document the experiences and views of the first women assigned to serve on U.S. Navy submarines. The resulting information is then assessed to gain an initial impression of the landmark event. Ultimately, it is hoped that the information gathered here can assist future research and analysis, while archiving the personal impressions, perceptions, and experiences of those who participated in the historically significant move toward complete gender integration of the U.S. Navy.

Historical background provides documentary evidence of the expansion of women's roles and the need for inclusion in the nation's armed forces. Gender integration, besides addressing social and organizational change, affects the military's ability to recruit, train, assign, and retain the most qualified people available for its very specialized occupations. The case of submarine service is no exception, as the Navy seeks to recruit the most highly qualified individuals for voluntary service. Role expansion offers greater flexibility to meet the Navy's needs, while providing greater career opportunities for its servicewomen.

Although the present research uses a mixed-methods approach, it is perhaps best described as an auto-ethnographic case analysis. The ethnographic approach employed here takes into account the culture of the Navy and Submarine Force, while collecting raw data for future analysis. Previous studies have attempted to build statistical models based on surface fleet data to forecast female sustainability in the submarine fleet, yet

these studies do not account for the actual experiences and lessons learned thus far. The present study hopes to supplement and strengthen previous work by documenting and assessing the actual experiences of female submarine officers. The authors' intent is to use these first-hand experiences to identify themes and lessons learned that would benefit gender integration processes and policies in the Submarine Force and other areas throughout the Navy.

The primary goal of this research is to document and determine how the first women integrated on submarines describe their experiences. Additionally, the individual stories of participants should highlight important issues associated with the integration process and provide further insight on how organizational culture and individual commands can affect the process. This information on experiences, while offering a rich data set for the future study of submarine culture, may eventually result in improvements to integration policies, programs, and practices more generally, including other roles not traditionally filled by women in the U.S. Navy or other military services.

The next chapter presents a background review describing women's historical roles in the U.S. military, highlighting some of the possible motivations behind their service in relation to social norms. The focus is on policy changes, since they help to explain the movement toward integrating women on submarines and its current status. A chapter on research methods follows, including a description of the present study's approach and data sources. Subsequently, case summaries and analysis are used to identify themes and short narratives from the data set. The final chapter presents a summary of conclusions, implications, and recommendations for further research.

## **II. BACKGROUND**

The present study looks at integrating women within only a fraction of the U.S. military, the Navy's Submarine Force. This chapter provides historical context on gender integration across the services, including the various barriers and evolving opportunities for women to participate in combat. First, women's early history in the military is explored to understand the path toward their expanded role in traditionally male military occupations and some of the motivations for eliminating gender barriers. This is followed by a brief account of women's service in the U.S. Navy, highlighting breakthroughs for women in the surface and aviation communities that eventually led to integration on submarines. Finally, a chronology of gender integration on submarines sets the stage for the self-reported stories of women who first served on these underwater platforms.

### **A. WOMEN IN THE U.S. MILITARY**

Women have been involved in military affairs as far back as history has provided documentary evidence, yet their positions have changed significantly over time and continue to evolve even today. Women's roles have been limited largely by societal norms. At the same time, military necessity, along with shifting societal norms, has propelled the expanding role of women throughout the nation's armed forces. This section discusses chronologically significant challenges in the nation's history that have gradually opened the doors to military service for women. This background shows how women's opportunities and responsibilities for defending the nation have increased with a corresponding change in their acceptance as more equal partners with their male counterparts. History also suggests that women's underlying motives for participating in the military have stayed relatively constant and similar to those of men.

#### **1. Early America**

During the American Revolution, women played essential roles as nurses, service providers, and camp followers; in some cases, women even stood and fought on the front lines. For example, in 1776, Margaret Cochran Corbin assumed her husband's duties after his death at Fort Mifflin, New York and fought for General George

Washington's fledgling nation. Corbin was permanently disabled in service, receiving a military pension until her death. In 1778, during the New Jersey Campaign, Mary Ludwig Hays assumed the role of her artilleryman husband after he was wounded at the Battle of Monmouth, leaving her water pitcher for a gun barrel to support the Colonialists. Later known as Molly Pitcher, or Captain Molly, Hays also eventually received a pension for her service. These are only two limited accounts of women whose situations were vastly greater than typical roles of an 18<sup>th</sup>-century woman (Courtney, 1999; Holm, 1982, pp. 3–5). Though their support was limited to unusual circumstances, these women were not considered part of the military effort and transitioned back to domesticity.

## **2. The American Civil War**

An unprecedented number of women served on both sides of the American Civil War in a multitude of roles. Most of these women were nurses or *vivandieres* (a European word for a woman who supplied food and water for soldiers), yet there were a number of female patriots who served in a more active role on the battlefield. Women serving as “daughters of the regiment,” although intended to play an ornamental role to inspire units, performed duties ranging from nursing to carbine-toting sharpshooter. A third, less well-known, group served as soldiers by disguising themselves as men (Hall, 1994). These three roles of nurse, inspiring supporter, and soldier are interesting because they developed military positions for women that still exist today.

Although many social norms and restrictions were superseded by the needs of the war, women who were nurses experienced the least societal difficulty in supporting the war. These women likely had a number of reasons for serving as caregivers, perhaps a combination of nationalism, moral scruples, and an adventurous spirit (Hall, 1994). Medical field leaders, such as Clara Barton and Dr. Mary Walker, supported the Union Army at great personal cost. Better known for establishing the first National Cemetery at Arlington, Virginia and organizing the American Red Cross, Barton was a vital force behind the Union Army's medical equipment and supplies. Walker gave up her medical practice to be a nurse, which was a more socially-accepted position for a woman. These and other inspired women improved healthcare, not just military ministrations and

positions, in sanitation and organizational standards. Though the Army gladly accepted the nursing contributions by women, it did not maintain female nurses after the end of the war. The nursing efforts of women did, however, permanently create a vocation for female military support during future conflicts (Holm, 1982, pp. 7–8).

Daughters of the regiment and other women who went with soldiers into battle filled a number of roles, but were closer to harm's way and often an active participant in combat. These women typically had a profound sense of duty and patriotism and bypassed social norms and military bans, called in early references, "half-soldier heroines" (Hall, 1994). The cases of Kady Brownell and Marie Tebe at the 1st Bull Run, and the cases of Belle Reynolds, Betsy Sullivan, and Bettie Taylor Philips at the Battle of Shiloh, show a range of participation. Some women were enthusiastic motivators for soldiers to press on, others were vulnerable to cannons and bullets as they administered to soldiers on the battlefield, and some were forced into imprisonment after bearing arms or spying on the enemy. These women, forced back into societal constraints after the war, were more than supporters and caregivers; they proved their ability to be both women and patriotic soldiers.

Women who disguised themselves as men to participate are perhaps the most extreme example of women's early efforts to support the war. The masculine facade seems to imply an additional trait to their motives for serving. These women wanted to make an impact without consideration given to their gender, which many women in today's military still state as their goal according to this research. Two of the better-known examples are Loreta Janeta Velazquez and Sara Emma Edmonds, known in their male roles as Harry T. Buford and Franklin Thompson, respectively. Though on opposite sides of the war, both women, from very different backgrounds, resorted to the same technique of living their lives as men to actually fight in the war.

### **3. The World Wars**

During World War I, gender integration occurred more out of necessity than from social or political change, but role expansion continued. The war required the United States to develop a larger conventional force, prompting the military to modernize. War

support requirements included clerical, communication and medical expertise. Many nations, including the U.S., needed women for wartime work. In response, over 12,000 women worked in Yeomen (F) positions as clerks, recruiters, and naval intelligence specialists. Approximately 20,000 women joined the Army and Navy Nurse Corps. Although not in conformance with the social norms of a woman's role at the time, the U.S. Naval Act of 1916 contained recruitment language that was not gender-specific. The Secretary of the Navy, Josephus Daniels, allowed this neutral interpretation to fill some of the personnel shortfalls, leading to additional policy changes to support women's inclusion in the war. The roles of women during World War I were limited by keeping them separated from the regular Navy and Army, at times "to avoid the questions of officer status and equal recognition of their abilities" (Hacker & Vining, 2012, pp. 213–214).

After the First World War, the United States, among other nations, made constitutional changes that permitted women to vote and have citizenship rights. Emergencies at a domestic level spur social changes. Scholars suggest that the new opportunities for economic independence and demonstration of new competencies, provided in the scope of both World Wars, transformed the boundaries of women's position in society (Carreiras, 2006, p. 10). Despite these changes, some traditionalists, many with political influence, firmly believed "the Armed Forces were no place for women and that military service would somehow destroy their futures as 'good mothers'" (Holm, 1982, p. 26). As Holm (1982) also observes, these sentiments began to change with World War II.

Due to the expansive theater setting of the Second World War and its intertwining effect on civilian and military society, the United States saw even greater shortages in manpower on the front lines, spurring more women to fill administrative and medical roles for the military that would free up men for transfer. Seeing the successful efforts of women's support in other nations and the permeating effects of war in every facet of daily life, the Department of Defense (DOD) permitted approximately 350,000 women to provide temporary support services. This included the Women's Army Auxiliary Corps (WAAC) and Women Accepted for Volunteer Emergency Service (WAVES) after the

attack on Pearl Harbor (Harrell, Beckett, Chien, & Sollinger, 2002). The perspective on women in military service at this point was based on three fundamental themes: women's positions were temporary, only for the duration of the wars; direct support positions were the only occupations permitted for women; and women were expected to return to the standard role of domesticity that society anticipated after a conflict (Carreiras, 2006, pp. 9–10).

The military's gender neutrality efforts after Victory in Europe Day shifted legislatively, yet prohibitions persisted on women's role in the military, just as they still existed in society. As Carreiras (2006) writes, "Women failed to capitalize on wartime disruptions of gender norms in order to improve their social position" (p. 11). This perceived failure appears contrary to the Armed Services Integration Act of 1948, which gave women permanent status in the Armed Forces, though percentage caps limited their numbers and roles. For example, women were restricted to two percent in the enlisted ranks and ten percent in the officer corps, and were subject to rank and age limitations (Women's Armed Services Integration Act, 1948). The Act, known more recognizably as the Women's Armed Services Integration Act, authorized "the enlistment and appointment of women in the Regular Air Force, Regular Navy and Marine Corps, and in the Reserve components of the Army, Navy, Air Force, and Marine Corps" (Women's Armed Services Integration Act, 1948).

Women who served in the military throughout the Second World War, although not assigned to combat, appear to have initiated a thought process that rested on their admirable service in professional roles. General Eisenhower and other military leaders saw a permanent role for women in service. Congressman Carl Vinson proposed the permanent assignment of a Women's Reserve in March 1946 (Holm, 1982), and Congress placed women permanently in military legislative doctrine with Public Law 80–625. This law was codified in United States Code 10 Section 6015, including the prohibition from "duty on vessels or in aircraft that are engaged in combat missions" or assignment "to other than temporary duty on vessels of the Navy except hospital ships, transports, and vessels of a similar classification not expected to be assigned combat missions" (Women's Armed Services Integration Act, 1948).

#### **4. Korea and Vietnam**

The Korean and Vietnam Wars were the next to demand more forces than were available at the time, necessitating an expansion of female troop support. Only 22,000 women were serving on active duty at the beginning of the Korean War, less than one percent of the Armed Forces. Within a year of the fighting, numbers had grown, yet only totaled a little over one percent (Holm, 1982, pp. 149–150). More significantly, for the first time in American history, women were called involuntarily to military service along with the men (Soderbergh, 1994). Although Congress lifted the two percent ceiling on women, this had minimal effect on women's involvement. Numbers were needed not only in the healthcare profession but also to help offset the large requirements placed on the draft. Recruiting efforts increased significantly, but the results were not exceptional and Secretary of Defense George Marshall created the Defense Advisory Committee on Women in the Services (DACOWITS) to assist recruiting goals (Holm, 1982).

Vietnam similarly required increased numbers of women, but additionally had to address the issue of permitting them to serve in combat zones. Armed forces leaders, though reticent to permit any woman into a combat zone, knew that nurses were desperately needed. By the end of the withdrawal, approximately 7,500 women had served in Southeast Asia (Holm, 1982, p. 206). These women successfully pushed social and military norms to prove both functionality and capability for women's uniformed service in a combat zone. Many argue that these successes prompted the policy changes of the post-Vietnam period.

#### **B. WOMEN OF THE MODERN U.S. NAVY**

Although the types of women's service positions remained relatively unchanged, legislation continued to push for change during and after the Vietnam War. The rise of feminism and the women's rights movement gained additional traction for legislative advancements in the military's gender equality. This section focuses on these changes with respect to the United States Navy. As policies and public attitudes shifted toward increased gender inclusion, the Navy integrated women into shipboard roles that

generated additional direct combat concerns. These changes led to the phased integration in the surface warfare and aviation communities.

### **1. The Post-War Period**

Initial policies during the post-Vietnam period addressed the temporary nature of women's military service through Section 6015, but women were still unable to compete equally with their male counterparts. Feminism was on the rise, focused on obtaining equal pay and benefits already in progress within the military (Holm, 1982). Congress removed the restrictions on women's rank and the cumbersome percentage caps by 1967 (Iskra, 2003), but more significant change was required after President Nixon enacted Public Law 92-129 on September 28, 1971. This law committed the nation to an All-Volunteer Force (Rostker, 2006), and all services acted to make improvements to military life in response. The Chief of Naval Operations, however, additionally aimed to make the Navy more satisfying and attractive for minorities. Admiral Zumwalt may not have intended to target women specifically, but his position appeared to be gender-neutral and was to "throw over-board once and for all the Navy's silent but real and persistent discrimination against minorities" (Rostker, 2006, p. 60). Despite women not being previously considered in most, if any, manpower studies, the Central All-Volunteer Force Task Force began studying women's roles in the military and their utilization following the push to pass an Equal Rights Amendment on March 22, 1972.

The Navy agreed to exceed the task force's initial manning goals and anticipated doubling the number of women. From 1972 to 1976, active-duty women grew from 1.9 percent to 4.6 percent across the forces (Rostker, 2006, pp. 175-176, 201, 324). Collegiate Reserve Officer Training Corps and limited ships were opened to women in 1972, and women began entering the nation's service academies in 1976 (Harrell et al., 2002). At the same time, court cases in the 1970s tackled benefits such as dependent assistance, motherhood needs and service on sea-going, non-combatant vessels (Iskra, 2003).

## **2. Navy Breakthroughs of the 1970s and 1980s**

A pivotal milestone for the Navy came in 1972 with Memorandum #5 of the Assistant Chief of Naval Personnel for Women (mostly known as the WAVE director). Navy Captain Robin L. Quigley effectively abolished the support structure for women in the Navy and focused women toward using traditional Bureau of Naval Personnel offices for assistance and management. Some reacted with disdain to her move, but it permitted the organization to adjust under the supportive management of Admiral Zumwalt, who had already made, and continued to make, supportive changes for women (Holm, 1982). By 1975, significant portions of career fields had opened to women, with approximately 80 percent without barriers in the Navy (Rostker, 2006).

The Navy's pilot program for ship assignment that began in 1972 on the USS SANCTUARY for assigning women at sea proved the efficacy of single sea duty assignments. Unfortunately, the women in the program did not fully grasp their career limitations until assignment. As a result, in 1976, six women filed a claim against Section 6015, claiming their exclusion based on gender was unconstitutional. After two years in federal court, Judge John Sirica ruled in favor of the women, stating,

The core protection afforded by the equal protection component of the Fifth Amendment is that laws favoring members of one gender and disadvantaging members of the other be reasonably and, beyond that, substantially related to the achievement of some important objective. (Iskra, 2003, p. 14)

The lawsuit set a precedent for women's future role opportunities, and the Navy requested from Congress that women's restriction from ships be amended under the Navy's literal interpretation of Title 10 USC Section 6015 (Iskra, 2003). By 1977, congressional hearings began, and by March 1978, Congress was considering H.R. 7431, which would allow greater utilization of women on ships. Related congressional hearings ended with tabling a total repeal of Section 6015. Further, the Chief of Naval Personnel endorsed changes in law to: (1) maximize force readiness by manpower efficiency, (2) address the decline of the eligible male population, (3) address society's increasing requirements for more female opportunity in career building within the Navy, (4) provide equal training and opportunity for Naval Academy graduates, and (5) bring the Navy up

to speed with the current positions allowed civilians (Iskra, 2003). During hearings regarding Section 6015, women's service in direct combat was discussed throughout, and it became a main theme of discourse. Other themes repeated, as expected, on physical strength, modifications to facilities, and the morale of men subjected to serving with women. Almost as foreshadowing, in closing remarks, questions arose on the status of submarines as a potential gateway for women in combat. The Navy's answer was limited to temporary duty allowances (Iskra, 2003).

### **3. Direct Ground Combat**

Concerns over women's role in combat continued to persist despite the significant strides of the military services and society toward removing other barriers to women. Most notably, the DOD Task Force on Women in the Military endorsed the "risk rule" in 1988. This rule prevented the opening of occupations to women if the position placed them at risk of exposure to direct fighting, capture, or hostile fire (Harrell & Miller, 1997). The rule proved difficult to interpret, legally and officially, and led to a policy for phased assimilation in aviation, combatant craft, and ground billets, respectively. From these measures, two women commanded units in 1989 in Panama; two years later, the Persian Gulf War found many women assigned to combat zones. This, along with the unanticipated ships with women that sailed through dangerous waters in the Gulf, would be a major motivator for change in 1993 (Iskra, 2003).

Based on evidence of women's effectiveness in combatant situations, the Navy recommended repealing the combat exclusion laws in 1993. Women in Operation Desert Storm performed well, their assignment to non-combatant ships and aviation roles did not exclude them from combat zones, and social acceptance of women in combat seemed to be increasing at home. Congress supported the Navy's recommendations to open combat aviation positions in April 1993, and Secretary of Defense Les Aspin directed integration of women on all ships not engaged in direct conflict missions (Harrell et al., 2002). Congress further established a guide for women's integration on Navy combatant ships in November 1993 through Public Law 103-160, the Defense Authorization Bill of FY 1994. Repealing the combatant exclusion law and passing the National Defense

Authorization Act for FY 1994 required the Secretary of Defense to: ensure that qualification for and continuance in occupational career fields is evaluated on the basis of a common, relevant performance standard and not on the basis of gender; refrain from the use of gender quotas, goals, or ceilings, except as specifically authorized by Congress; and refrain from changing occupational standards simply to increase or decrease the number of women in an occupational career field (Harrell et al., 2002).

At this point, women constituted approximately 12 percent of Navy personnel, and the repeal would now permit them to serve in combat aircraft and ships (Iskra, 2006). By January 1994, Les Aspin overturned the “risk rule” and redefined “direct ground combat” for clarification. The role was defined as:

Engaging an enemy on the ground with individual or crew served weapons, while being exposed to hostile fire and to a high probability of direct physical contact with the hostile force’s personnel. Direct ground combat takes place well forward on the battlefield while locating and closing with the enemy to defeat them by fire, maneuver, or shock effect. (Harrell & Miller, 1997, pp. 2–3)

The only restrictions permitted by Secretary Aspin were: positions where the cost of appropriate berthing and privacy arrangements are prohibitive, doctrinal roles that would require physical collocation with direct combat units prohibited for women, long range reconnaissance operations and Special Operations Forces missions, and jobs with physical requirements that would necessarily exclude the vast majority of female servicemembers (Burrelli, 2013).

With Operations Iraqi Freedom, Desert Shield, and Desert Storm in the early 1990s and 2000s, specific wartime situations further affected the roles performed by women. Although perhaps more applicable to the operational environment of the Army, the shift from previous, conventionally-fought wars to more asymmetric conflict blurred the lines between direct ground combat and support roles, thus bringing to question the 1994 definition of direct combat (Burrelli, 2013). Ineffective policy definitions not only hampered discussions of direct combat, but also the matter of integrating women on submarines.

### **C. WOMEN ON SUBMARINES**

The integration progress described above cleared many impediments for women's inclusion in the submarine service. Previous literature reveals a variety of cultural, social, structural, and political concerns that were overcome historically by the military's need for manpower during conflict. More recent apprehensions revolved around de facto changes in the combat exclusion laws of the 1990s and women's safety, yet many of the topics were still a reflection of previous resistance to gender integration. Arguably, the major catalyst for change came from societal expectations of diversity and equity and the military's ability to achieve those objectives. Today, after significant policy and operational changes, female officers are serving on many submarines and efforts are underway to do the same for enlisted personnel.

#### **1. Legislative Changes and Service Efforts**

On December 5, 1991, legislators repealed the limitations of servicewomen's assignment to combat aircraft and naval vessels (National Defense Authorization Act, 1991), yet barriers to women still existed for submarines. Despite the limits on undersea service, the law further established a Presidential Commission on the Assignment of Women in the Armed Forces to provide recommendations for policy changes. In November 1992, the commission's report recommended a repeal to existing laws and policy modifications for women to serve on more combatant vessels, but still not on submarines (United States, 1992, p. 72). Legislative changes in 1993 included expanded gender-neutrality requirements and gave timelines for congressional notice on proposed changes for female assignments in combat roles. Specifically, the Defense Secretary had to notify the Armed Services Committees, of both the House of Representatives and the Senate, at least 90 days prior to any policy change in ground-combat assignments, but only 30 days before opening a combatant vessel or platform to women (NDAA, 1994). Secretary of Defense Les Aspin directed a new assignment policy for women on October 1, 1994 that reduced restrictions, but submarine service was still excluded. Women could not be assigned to platforms that were cost prohibitive in berthing and privacy changes, as confirmed by Service Secretary attestation (Burrelli, 2013).

The new program for the Virginia-class submarine began in the 1990s, part of President Clinton's military reform (Defense Industry Daily, 2008). Since berthing and privacy costs were the only lawful concern barring women's integration, many advocates of removing barriers to women questioned the Virginia-class design. DACOWITS specifically questioned the gender neutrality of the new class. While not released to the public until 1999, the CNO provided the *Submarine Assignment Policy Assessment (SAIC Report)* to DACOWITS in 1995. The report concluded that:

Introducing women into submarines is less a question of whether they can do the day-to-day work than it is a question of whether the added complications of a mixed-gender crew will undermine the operational effectiveness of the ship. Therefore, the focus should not be on women, per se, but on the ramifications of having mixed-gender crews in the unique submarine environment. (SAIC, 1995)

Overall, the report states that a mixed-gender crew would "complicate submarine life," but generally observes that tradeoffs would have to be considered with respect to costs and effectiveness, which is consistent with previous efforts toward integration. In the spring of 1999, DACOWITS recommended that: (1) future submarines have mixed-gender accommodations and (2) female officers be assigned to Trident ballistic missile submarines (SSBNs) (Donnelly, 2007).

Despite pressure from two Navy Secretaries, John Dalton and his successor, Richard Danzig, the CNO provided additional material that questioned the validity of assigning women to submarines. DACOWITS continued to disregard the Navy's summarized reports and slides, clinging to its call for Virginia-class redesign and assignment of female officers, despite a few tangible points. Some of the more notable contentions, summarized below and based on Donnelly (2007), are:

- Alterations could reduce already below-standard conditions
- Separate women's quarters would not only cramp living conditions, but fail required habitability standards
- Virginia-class submarines were purposed to be smaller, which would require operational equipment removal to permit female inclusion
- Current assignment of female officers would create a two-tiered community
- Medical emergencies with respect to women's health are too great a concern and could impose too great a risk

Realizing that advocates of women on submarines could lead to changes in the Navy without congressional approval or oversight on platforms, Representative Roscoe Bartlett (R-MD) quickly sponsored passage of the National Defense Authorization Act of FY 2001. The law prevented the Navy from spending money on reconfiguration or design efforts for female integration on submarines without approval from Congress, and the Navy did not ask for any hearings to air the matter or express concern (Donnelly, 2007).

In 2006, Chief of Naval Operations Admiral Mike Mullen made several statements regarding gender diversity and provided favorable prospects for women's integration into the submarine community. Whether this was due to the increased numbers of educated women in technical fields, recruitment deficiencies, social pressures, or moral justifications, both he and the Naval Academy Superintendent increased gender quota goals (Donnelly, 2007). In a speech presented at the Naval Air Systems Command Total Force Diversity Day, Mullen stressed his position on diversity: "Having the cultural skills, having the diverse backgrounds in order to literally achieve our mission is really critical. That is why [diversity] is a strategic imperative" (Chief of Naval Operations Public Affairs, 2006). The CNO encouraged healthy discussions among service members to create opportunities for all, not just some, and proposed that these improvements would better address the challenges from globalization and the war on terror.

The next publicized push for women in submarines began in September 2009, with Defense Secretary Robert Gates informing Congress of the decision to pursue gender integration on submarines (Rickard, 2010). Admiral Mullen, as Chairman for the Joint Chiefs of Staff, in his reconfirmation hearings before Congress, stated that he wanted to see the policy changed. At the same time, CNO Admiral Gary Roughead described himself as "comfortable" with force integration, but voiced concern over the retention rate for women. With a gap of almost 15 percent in retention rates between men and women, according to Admiral Roughead, the Navy had to address the possibility of submarine force shortfalls (Tyson, 2009). Despite sustainability concerns, officials noted that "there is a vast pool of talent that we are neglecting in our recruiting efforts" (Rickard, 2010). On February 19, 2010, the Secretary of Defense gave formal notice to

Congress of a plan to gender-integrate submarines. On April 29, 2010, Navy Secretary Ray Mabus and the CNO moved forward with the announced plans to integrate female officers on submarines (CMR, 2010).

## **2. Officer Accessions**

The National Defense Authorization Act (2011) for fiscal year 2011 mandated a review of the following by the Secretary of Defense and Secretary of the Navy:

Laws, policies, and regulations, including the collocation policy, that may restrict the service of female members of the Armed Forces to determine whether changes in such laws, policies, and regulations are needed to ensure that female members have equitable opportunities to compete and excel in the Armed Forces. (NDAA, 2011)

In May of 2011, the Chief of Naval Operations responded with OPNAVINST 1300.17B: Assignment of Women in the Navy (see Appendix A). This instruction includes updated procedures pertinent to integrating women officers on submarines. Specifically, the instruction states the following:

- Women would be assigned to designated submarines
- Only female officers could be assigned to submarines
- All women would be detailed to submarines per standard detailing procedures (Chief of Naval Operations, 2011)

Rear Admiral Barry Bruner led efforts as the head of the task force for the Women in Submarines program. He announced the progression that would begin with 24 women, three women for each crew, assigned to two submarines on each U.S. coast, in Kings Bay, Georgia and Bangor, Washington (Bynum, 2010). The plan assigned women in the nuclear pipeline to Nuclear Power School in July of 2010 with fleet placement toward the fall of 2011. Two nuclear-trained officers and one surface-qualified Supply Officer would complete the female complement per crew (Bruner, 2010). Chief of Naval Operations policy coincided with the initial women's training at Submarine Officer Basic Course (SOBC).

The first female cohort of ship's company submariners graduated from SOBC in November of 2011 and was dispersed to their respective crews assignments (McDermott, 2011). Submarines included the ballistic missile submarines USS WYOMING (SSBN 742) and USS MAINE (SSBN 741), and the guided missile submarines USS GEORGIA (SSGN 729) and USS OHIO (SSGN 726). Guidelines for embarkation can be reviewed in Appendix B (Commander, Submarine Group 10, 2011). In June of 2012, the first female Supply Officer qualified in submarines (Commander, Submarine Group 9 Public Affairs, 2012) and was followed by the first qualified female submarine officers on December 5, 2012 (Browning, 2012). By the next announcement of officer integration in 2013, there were six integrated submarines (12 crews) with 43 women assigned. This next step pertained to the inclusion of officers on two Virginia-class submarines, the USS VIRGINIA (SSN 774) and USS MINNESOTA (SSN 783) (Defense Media Activity-Navy, 2013).

### **3. Enlisted Inclusion**

Submarine integration plans began with female officers on two submarine platforms in 2011, expanded to its third platform in early 2015, and continues to increase efforts by platform and in future design considerations. Simultaneously, the force is executing plans to include enlisted women (Johnson, 2013). As reported by RAND, there were a total of 13,000 closed enlisted positions for submarine-related occupations, 12,128 on submarines themselves (Miller, Kavanagh, Lytell, Jennings, & Martin, 2012, p. 45). In 2013, the submarine force announced its final integration phase to remove the barrier for enlisted women (Fellman, 2013).

Planning for enlisted integration began similarly to that used for integrating officers. Rear Admiral Ken Perry, as head of Submarine Group 2, was assigned to lead the study and looked toward a 2016 goal for selective boat assignment (Fellman, 2013). The Enlisted Women in Submarines Task Force (EWSTF) originated in May 2013 and would produce the plan that identified and addressed complications, while promoting an appropriate female submariner population. In looking for a sustainable and actionable plan, the Director of Military Personnel Plans and Policy sponsored a study by the Center

for Naval Analyses to provide analytical support to the EWSTF (Parcell & Parvin, 2014). Rear Admiral Perry also looked to the first cadre of integrated officers to receive candid face-to-face feedback on their own experiences with the process and their thoughts on enlisted integration (K. Ellis, personal communication, 21 April 2015). A plan was submitted to Congress on July 18, 2014 that stated intentions to modify seven Ohio-class submarines and build Virginia-class submarines for gender-neutral assignment (Somers, 2014). Recent 2015 Naval administrative message traffic (see Appendix C) shows the approved plan for enlisted integration. As of April 2015, selection is ongoing (Moran, 2015).

#### **D. CONCLUSION**

Women in the United States Submarine Service, while a relatively minute portion of the historical integration process, are an interesting and valuable case study for gender integration in other contexts. The setting for women's integration on submarines may be difficult for those not familiar with the organization to understand. A chronology of events leading up to integration in this "final frontier" of Navy service is thus helpful in illuminating legal and cultural impediments as well as the process by which barriers were ultimately lifted. Foremost among the forces of change was the military's need for personnel; necessity, as they say, and particularly during periods of war, is the mother of invention. Further, the context of historical progression and the manner in which women's role in the military has expanded shows how shifting societal norms and attitudes gradually propelled the military toward policy changes. Additionally, the sea-going, forward-positioned nature of the Navy allowed women of the surface and aviation communities to become the pioneers of gender integration, thereby easing traditional military thinking while opening doors for more complete gender-neutrality. History, however, can only provide a basic understanding of the process leading to women's integration on submarines. The next chapter analyzes the additional contributions of individual experiences towards a more meaningful understanding of submarine integration.

### **III. METHOD**

A qualitative research design was used to address the questions posed in this study. It is neither a traditional ethnography nor a case study, but rather a combination of research methods from both traditions. More specifically, the ethnographic techniques fall into a sub-genre of organizational ethnography commonly referred to as autoethnography. This chapter will examine the framework of the research design to include a discussion of its appropriateness, it will provide a description of the setting and background of the research participants, it will include a discussion of the data collection methods as well as the roles and impacts of the researchers as data collectors, and it will conclude with an evaluation of the limitations and strengths of the study method.

#### **A. QUALITATIVE DESIGN AND RELEVANCE**

The primary objective of this project was to create an organized, qualitative data set detailing first-person accounts of a momentous occurrence in the U.S. Navy, the initial integration of women into the submarine force, which would provide deep insight into this complex social group process. In designing the study the researchers focused on the goal of documenting the lived experiences of the first female submariners in such a way as to allow meaningful responses to the primary research questions: How would the first women to join the submarine force generally describe their integration experience? What factors supported or hindered their integration? What was the character of the organizational culture and how did it affect their experiences? Have their experiences affected them, professionally or personally and, if so, how? What do the participants see as the benefits of their integration? Such questions cannot be answered by collecting the type of quantitative data that can be analyzed using statistical methods. Complex social processes are shaped by the beliefs, attitudes, and experiences of the people involved (Marie, 2001), and by the culture of the parent organization. Description and interpretation of the process can only occur in context, and any effort to share what is learned requires an understanding of the context (Marie, 2001). Answering these questions requires a deeper understanding of this process and research methods that can

reproduce experiences that embody cultural meanings and understandings that operate in the “real” world (Denzin, 1997). These needs are best met with qualitative research designs. Bogdan and Biklen (2007) provide the following description of qualitative research design (as cited in Marie, 2001):

The data collected have been termed soft, that is, rich in descriptions of people, places and conversations, and not easily handled by statistical procedures. Research questions...are formulated to investigate topics in all of their complexity, in context. While people conducting qualitative research may develop a focus as they collect data, they do not approach the research with...hypotheses to test. They also are concerned as well with understanding behavior from the subject's own frame of reference.

In his book *Qualitative Inquiry and Research Design*, John Creswell (1998) offers several “compelling reasons” to use a qualitative research approach, which align with the structure of this study.

1. The nature of the research question. In qualitative studies, questions often start with how or what and seek to describe what is going on, in contrast to quantitative studies that tend to ask why and look for cause-and-effect relationships or correlations between variables.
2. Qualitative studies should be utilized when the topic requires exploration, meaning there are not clearly defined variables, and theories to explain participant behavior are not currently available and require development.
3. Qualitative studies are most appropriate when a close-up, detailed view of the topic is required to answer the research questions posed.
4. Qualitative study should be chosen when it is important to observe the behavior of participants in their natural setting or in context of the social process.
5. A qualitative approach is appropriate when the presentation of the data will often take on a story telling form of narration, or when the writer intends to bring him or herself into the study.
6. Qualitative methods should be used when detailed but unstructured data will be collected in the field and data to be analyzed will be in the form of text.
7. Utilize a qualitative approach to emphasize the researcher's role as an active learner who can tell the story from the participant's view rather than as an “expert” who passes judgment.

Quite similarly, Field and Morse (1996) suggest using qualitative methods when little is known about the domain, when the researcher suspects bias to be present in current knowledge or theories, or when the research questions pertain to understanding a

phenomenon or event about which little is currently known. Each of these describes the conditions of this study.

In summary, a qualitative design was appropriate to document and analyze the lived experiences of the subjects in this study. It is most appropriate because of the nature of the questions asked, the lack of clearly defined variables, the necessity for contextual understanding, the fact that the data is in the form of narrative text, and the researchers' roles as active participants. It enabled a deeper understanding of this complex social process from which to evaluate the questions posed and captured invaluable data from this one-time, unique social event that can be drawn upon for future studies.

## **B. CHOICE OF QUALITATIVE METHODS**

Within the field of qualitative study there are many methodologies or research frameworks from which to choose, such as biography, phenomenology, grounded theory, ethnography, case study, and many others (Creswell, 1998). The central purpose of the research determines the choice of methods (Marie, 2001). For this study, the design chosen is best described as a combination of organizational autoethnography, a sub-genre of ethnography, and a multiple case study. The following paragraphs depart from the high-level discussion of qualitative design to provide a more detailed description of these qualitative research traditions.

### **1. Ethnography**

A description of autoethnography must start first with an understanding of the parent methodology of ethnography. Willis (2007) suggests that ethnography is a broad “umbrella term for fieldwork, interviewing, and other means of gathering data in authentic (e.g., real-world) environments” (p. 235). Ethnographies provide understanding and descriptions of unique cultural or social groups by examining their behavior, social interactions, language, customs, and general way of life from the perspective of an active participant who is immersed in the group. This is accomplished typically through prolonged direct participant observation and individual interviews with the group members (Creswell, 1998). Ann Cunliffe (2010) offers perhaps a complete definition of

ethnography, encompassing both the mechanics of the design and the edifying intents of such studies.

Ethnography is about understanding human experience—how a particular community lives—by studying events, language, rituals, institutions, behaviors, artifacts, and interactions. It differs from other approaches to research in that it requires immersion and translation. Ethnography is not a quick dip into a research site using surveys and interviews, but an extended period time in which the ethnographer immerses herself in the community she is studying: interacting with community members, observing, building relationships, and participating in community life. She then has to translate that experience so that it is meaningful to the reader. This is not achieved by testing propositions and generating predictive and generalizable knowledge...(p. 4–5)

To dig yet one level deeper, the term organizational ethnography is often used when the focus of the study is understanding and describing experiences of individuals within the framework of a specific organization. Organizational ethnographies describe how people manage and organize themselves to do their daily work and live their daily life within the context of their organizational culture (Cunliffe, 2010), or as Alvesson (2003) puts it, “what ‘really’ goes on in organizations: how people act, interact, talk and accomplish things” (p. 168).

## **2. Autoethnography**

The major distinction between a conventional ethnography and autoethnography is the fact that the researcher is deeply self-identified as a full member of the group or social world being studied; group membership precedes the decision to conduct research (Anderson, 2006). In their book *Membership Roles in Field Research*, Patricia and Peter Adler (1987, as cited in Anderson, 2006) refer to these researchers as CMRs, or Complete Member Researchers. Group membership can come simply from sharing like circumstances, such as a unique medical affliction, where the members share common experiences but have little to no other connection, or it may involve more complex social or organizational structures and unique sub cultures (Anderson, 2006), as is the case in this study. As previously discussed, the traditional ethnographer engages in participant observation (Creswell, 1998) within a setting or community that they have entered

temporarily, as a stranger (Alvesson, 2003). The researcher must then attempt to understand the natives from their point of view, or “break in” (Alvesson, 2003) if you will. The autoethnographer, by contrast, not only has “natural access” to the cultural setting (Alvesson, 2003, p. 174) but by virtue of being an insider can “draw on personal experience, cultural competence, and linguistic resources to frame and shape research in a way that an outsider cannot” (Karra & Phillips, 2007, p. 547). Instead of simply conducting participant observation, the researcher becomes an observing participant (Alvesson, 2003).

Another key distinction between conventional ethnography and autoethnography lies in how the researcher’s role as a group member is revealed in the text. Unlike traditional ethnographies where the researcher is revealed as more of a detached observer, in autoethnographies the researcher is identified as an active social actor, and it is recognized that their own feelings and experiences are not only involved in the way they understand and frame the social world being studied but are considered vital for that understanding (Anderson, 2006). In many cases autoethnographers may even recount their own thoughts and experiences within the text in order to demonstrate their personal engagement or illustrate their analytic insights (Anderson, 2006). Atkinson, Coffey, and Delamont (2003, as cited in Anderson, 2006) perhaps best summarize this idea:

[Auto]ethnographers-as-authors frame their accounts with personal reflexive views of the self. Their ethnographic data are situated within their personal experience and sense making. They themselves form part of the representational process in which they are engaging and are part of the story they are telling.

In summary, autoethnography, as defined by Karra and Phillips (2007) is “the generation of theoretically relevant descriptions of a group to which one belongs based on a structured analysis of one’s experiences and the experiences of others from one’s group” (p. 547). Though autoethnography bears many resemblances with its parent genre ethnography, the fundamental differences are the inclusion of the researcher as a full member of the social group under study and the vital presence of the researcher in the text as an active participant in the creation of understanding and knowledge of that group. As Reed-Danahay (1997, as cited in Karra & Phillips, 2007) best puts it, “whereas the

ethnographer translates a foreign culture for members of his or her own culture, the autoethnographer translates ‘home’ culture for audiences of ‘others.’”

### **3. Case Study**

The case study research method can be defined as “an examination of a specific phenomenon such as a program, an event, a person, a process, an institution, or a social group” (Merriam, 1988, as cited in Willis, 2007). At first glance this definition may seem no different than the previous description of ethnography and indeed, as Willis (2007) points out, case studies are much more similar to ethnographies than dissimilar. The key differentiation between case studies and other qualitative methods is that a case study is an examination of a bounded system and the object of interest is the case itself (Creswell, 1998). Merriam (1998) asserts, “the single most defining characteristic of case study research lies in delimiting the object of study, the case” (p. 27). While in ethnography what is being analyzed for understanding is the sociocultural processes within a group (Merriam, 1998), in case studies the focus is to understand the intricacies of the specific case itself—a program, an event, an activity, an individual—bounded by time and place (Creswell, 1998) and within its own real-life context (Scholz & Tietje, 2002).

As with ethnographies, there are many variations of case study design. Choice of design is based on three major factors: 1) Purpose, that is, whether the intent is to describe, interpret, or evaluate a phenomenon (Merriam, 1998); 2) Motivation, be it intrinsic or instrumental (Scholz & Tietje, 2002); and 3) Design, whether it is holistic or embedded (Yin, 2009). Additionally, case studies may be designed around a single case or multiple cases, sometimes referred to as collective case studies (Merriam, 1998).

Merriam (1998) explains that the purpose of the case study is based on the desired end result, or the overall intent of the study. Descriptive studies are designed to do just that, describe. They are simply a chronicle of events and not directed by any established theories or models. This type of case study often forms a database for future analysis and theory building. Interpretive case studies also provide detailed descriptions of the phenomenon or event being studied but are designed to illustrate, support or challenge an assumption or set of assumptions that were developed prior to the study. The key element

of an evaluative case study is that it ends in judgment. These case studies are designed to weigh information in order to develop and support a conclusion.

When investigating the motivation for a case study, the key difference between an intrinsic and instrumental study is in the interest that the research or study group has in the subject of the study. When the researcher's interests are in the understanding of the case itself, and these interests are of a more nonscientific nature, the researcher is said to be intrinsically motivated. If, however, the primary interest for conducting the study is to gain knowledge in order to further understanding of something other than the case itself, it is considered an instrumental study (Scholz & Tietje, 2002). As Stake (1995) points out, intrinsic case studies are rarely chosen; rather, they are given. It is because the researcher takes an interest in the case itself that the case gets studied. Conversely, for instrumental studies, cases are chosen specifically to answer a separate research question.

When it comes to the overall design of case studies, Yin (2009) identifies two major categories, holistic and embedded; the units of analysis, and what level analysis of the data is conducted at, determine the difference. In a holistic study there is only one unit and level of analysis, and emphasis is placed on understanding the entire case as a whole. In an embedded study there are multiple units and levels of analysis, and attention may be given to individual subunits. Additionally, holistic case studies typically involve qualitative analysis only, while embedded studies often involve use of various methods, both qualitative and quantitative, within the subunits (Scholz & Tietje, 2002).

The final design characteristic of case studies is the number of separate cases that are involved in the overall study. When more than one case is involved that can be distinguished as fully separate cases rather than simply subunits, the study is often referred to as a multiple case study (Scholz & Tietje, 2002) or collective case study (Merriam, 1998). Multiple case studies allow cross-case analysis that is not possible in single case studies. Additionally, variations between cases make generalizations or theories that can be developed from the data more compelling, especially when the number of cases involved is large. For these reasons, the use of multiple cases is often used as a strategy to enhance the validity of a study (Merriam, 1998).

#### **4. Summary**

The choice of research methodology for this study was a combination of organizational autoethnography and multiple case study qualitative traditions. It is an ethnography because the study sought to qualitatively understand human experiences through the complex social process that was the initial integration of women in the U.S. submarine force. It would be considered organizational ethnography because the study focuses on experiences within the organizational context of the Navy and the submarine community. It is an autoethnography because the researchers were full members of the community being studied, one a 15-year career submariner and the other one of the first 24 females integrated. The study is a case study because it is an examination of a specific event, bounded in time and place (Creswell, 1998). As a case study it is descriptive in intent because no preexisting theories or models guide it and it provides a detailed database of descriptive data that will be useful in future studies. It is intrinsically motivated because the object of interest is the case itself, the social process of initial integration. It is an embedded study because, while the overall focus is the understanding of the integration process in the submarine force as a whole, by examining the experiences of individuals as the units of analysis, attention is also given to subunits in the form of organizational cultures on board individual submarines. Finally, it is a multiple case study because, although the organization in the study is the submarine force, each submarine crew has its own unique and individual climate and culture that shapes the experiences of its members, which allows differentiation of these experiences as fully separate cases within the construct of the whole.

### **C. DATA COLLECTION**

#### **1. Study Setting**

A deep understanding of a social process necessarily requires an understanding of the setting in which that process occurs (Marie, 2001). The social process under study in this case is the initial integration of female officers into submarine crews. Submarine crews work in a unique physical and operational environment. Exploration of the integration of women into submarine crews, thus, requires an understanding of this

unique setting. The following discussion focuses on the physical environment of the submarines and the operational, social and psychological environment faced by both male and females on submarines.

**a. The Submarine**

The Navy currently operates four classes of submarines. These classes are further subdivided based on their function or mission. Three classes, the Los Angeles, Seawolf and Virginia classes, are identified as attack submarines or SSNs. The major function of attack submarines is to perform seek-and-destroy missions on enemy ships and submarines, conduct surveillance and reconnaissance, provide covert troop insertion, and conduct mining and anti-mine operations. The fourth class of submarine, the Ohio class, was designed for the sole purpose of carrying and launching the Trident submarine launched ballistic missile (SLBM). Often referred to as “boomers,” the submarines of the Ohio class provide the most survivable leg of the United States’ nuclear triad of SLBMs, intercontinental ballistic missiles (ICBMs) and aircraft-deployed weapons (Woolf, 2015). Their sole mission is strategic nuclear deterrence. Recently, four Ohio class submarines underwent a conversion process to produce a third submarine mission capability. These submarines were modified to now carry up to 154 tactical Tomahawk missiles instead of their previous load-out of 24 ballistic missiles. In addition to providing this new cruise missile capability, they were also specially modified to carry and deliver teams of Special Operations forces covertly. Although they are still part of the Ohio class, these four boats were re-designated as guided missile submarines, or SSGNs (Navy Recruiting Command, n.d.).

Because of their specific mission sets, the attack submarine classes and the Ohio class subs were designed with significantly different dimensions. Attack submarines are smaller and more agile, while the Ohio class boats are much larger and spacious to support not only the missile payload they were designed to carry but also extended periods at sea without resupply. In terms of berthing and sanitary facilities, no class of submarine was designed to support dual-gender crews. The Navy determined that because of the greater living space and the layout of officer berthing and sanitary

facilities on board Ohio class submarines, however, no significant modifications would be necessary in order to support the initial integration plan of three female officers per crew (Alliance for National Defense, 2010). For this reason, Navy policy directed that for initial integration, females would be assigned to crews on Ohio class submarines, SSBNs and SSGNs, only (Commander, Submarine Group 10, 2011).

Although the Ohio class submarines are substantially larger than attack submarines, 560 feet long and 42 feet wide vs. 360 feet long and 33 feet wide for the Los Angeles class (U.S. Navy, 2014a; U.S. Navy, 2014c), living space is still very small compared to surface ships. Submarines are designed from the start to minimize overall size and costs (SAIC, 1995), which necessarily means that internal space is utilized to the maximum extent possible. Personnel aboard submarines live and work amongst a myriad of complex propulsion, weapons, habitability and other systems, and their associated equipment, not to mention the onboard nuclear power plant, often staying submerged for months on end. This quote (Gwinn & Tanquin, 1994, as cited in SAIC, 1995) provides a concise description of life on board a nuclear submarine:

A nuclear submarine embodies the highest form of integrated technologies in the world—more complex than even space vehicles—and must operate in a more hostile environment. U.S. submariners must live and work underwater for extended periods, coexisting with a nuclear reactor.

As space on board is very limited in general, personal space is even scarcer. On Ohio class submarines, the majority of the crew berth in the missile compartment, in a dozen 9-man bunkrooms between the missile tubes. In these bunkrooms the beds, or “racks,” are stacked three high. Each rack is approximately six and a half feet long, one and a half feet wide and has eighteen inches of clearance between the mattress and the upper bunk or ceiling. Within each bunk is a reading light and an adjustable ventilation outlet. When in the rack, privacy is provided by a curtain along the side that may be drawn shut. The mattress pan is hinged so it can be lifted to access a storage area approximately three inches in depth beneath the mattress. This storage area and a single pull out drawer, no larger than your typical filing cabinet drawer, is the extent of each enlisted man’s personal storage (SAIC, 1995). All enlisted personnel share two

community heads, each with three toilets, four sinks and two showers. At peak times, there are often lines to use the heads.

Although officer berthing is in a different location on the ship, called officer country, it offers little more privacy and space than the enlisted berthing. The racks used in officer berthing are nearly identical to those in enlisted berthing, but are located in shared staterooms that are secured by doors rather than curtains, as is the case for the enlisted bunkrooms. The CO and XO each have their own stateroom with a shared head containing one shower and one toilet. The remaining officers on board occupy two three-person staterooms, and three two-person staterooms. There are typically more officers on board than available space in the staterooms, so some officers, typically the most junior, are assigned berthing in the enlisted bunkrooms.

In department head and junior officer staterooms, racks are also stacked three high as in the enlisted bunkrooms. Staterooms have two shared storage units, each with three drawers similar in size to a typical bedroom dresser drawer, a tabletop that folds down to provide a surface for use of the laptop that is stored behind it, and two lockers above the table, typically used for storage of books and binders. There are also additional medium and large-sized community storage lockers, arranged in different configurations depending on the stateroom. The members of the stateroom generally decide on division of the community storage spaces. With the exception of the CO and XO, the officers all share a single head, which has two toilets, two showers, one sink, and a porthole window on the main door.

Aside from personal spaces, nearly all other spaces on board are considered operational, with the exception of the mess decks where the crew eats meals, the wardroom, which serves as the messing facility for the officers, a small lounge for the enlisted crew only, and the officer's study, a small room that also serves as a ship's publication library. Neither the mess decks nor the wardroom has enough seating to accommodate its target population during a meal, meaning there are often long lines or skipped meals during meal hours. These spaces are also often utilized for other purposes during non-meal hours such as group training sessions or meetings, as is the officer's study. The following are some additional descriptions of the physical submarine

environment provided by Science Applications International Corporation in their 1995 Submarine Assignment Policy Assessment (pp. 18–19):

- Unlike surface ships, submarines offer no place to be alone, except in the bunk with curtain drawn.
- There are no windows or any connection with the outside—no opportunity to walk topside, to look at the ocean, to watch sunrise or sunset; to observe weather changes.
- There is no indication of speed or depth, except for an occasional gauge, a sharp turn, or when the ship takes an angle to change depth. Submerged the platform is almost always steady.
- Temperature is constant.
- Physical proximity to and contact with shipmates is unavoidable and frequent.
- Except for when the mess decks are free, there is virtually no place to sit down—except for those standing watch at their equipment.

Per navy doctrine (Commander, Submarine Group 10, 2011), female officers assigned to crews aboard Ohio class submarines were to be given a three-person stateroom. This requirement was intended to support the policy that females were to be assigned to submarine crews in groups of three, one senior female supply officer and two nuclear officers. In practice, however, the number of females onboard at any given time varied due to personnel gain and loss timing, and the occasional presence of female riders from other crews. When the number of females on board was other than three, personnel were shuffled between the two and three-person staterooms to accommodate. Females and males were not allowed to berth in the same stateroom, and by policy, female officers were required to be assigned to a stateroom that could be secured by a locking door. As a result, male officers were often displaced to enlisted berthing. To address the shared head situation, integrated crews were required to have a sign manufactured and placed on the door that could be flipped around to indicate when the head was in use by a female or a male.

#### **b. The Operational, Social and Physiological Environment**

The typical composition of a crew aboard an Ohio class submarine (SSBNs and SSGNs) is 15 officers and 140 enlisted (144 for SSGNs) (U.S. Navy, 2014a; U.S. Navy, 2014b). The group of officers is often collectively referred to as the “wardroom.” The

wardroom consists of the Commanding Officer (CO), the Executive Officer (XO), four Department Heads (DH), the Engineer Officer (ENG), the Navigation Officer (NAV), the Weapons Officer (WEPS), the Supply Officer who is referred to on submarines as the CHOP, and multiple Division Officers (DO). Division Officers are the most junior officers, ranging in rank from O-1 to O-3, and are all on their first tour of duty at sea. Department Heads are on their second sea tour and are O-3s or O-4s. The XO is typically on his third sea duty and is an O-4, although some may advance to O-5 prior to completing their tour as XO. The CO of any submarine is overall in charge and has successfully completed an XO tour and Prospective CO (PCO) school to qualify for command. On SSBNs the CO is an O-5, while on SSGNs the CO is an O-6 who has already successfully completed one command tour.

On both platforms, there are two full and separate crews assigned, designated the gold and the blue crews. One crew takes the boat out to sea to conduct its primary mission, then returns to homeport or other facility to conduct a maintenance upkeep period. During this period, command of the ship is handed over to the other crew, who then takes the ship back to sea following the maintenance period, leaving the previous crew in port to conduct an off-crew pre-deployment training period (PDTP). The cycle then repeats, thus maximizing the operational tempo of the ship. For SSBNs, the typical rotation is 77 days at sea and 35 days in port for upkeep (U.S. Navy, 2014a). SSGNs maintain a similar schedule, except unlike the SSBNs whose maintenance periods are always conducted in homeport, every other upkeep and crew exchange is conducted from a forward-deployed U.S. Naval base in either Guam or Diego Garcia.

The rank and responsibility structure on a submarine crew also serves to define its social structure. The crew is divided into three main entities: the wardroom, as previously discussed; the Chief Petty Officer (CPO) quarters, consisting of senior enlisted members ranked E-7 to E-9; and the junior enlisted personnel ranked E-1 to E-6. The enlisted community is further separated into divisions by Navy rating, or job specialty. Enlisted members in the Navy are rated based on their specific training and area of expertise. For example, nuclear-trained enlisted electricians are rated as Electrician's Mates, personnel trained in nuclear machinery are nuclear Machinist Mates, personnel trained in non-

nuclear mechanics are rated conventional Machinist Mates, and those trained to operate and maintain sonar equipment are Sonar Technicians. Each division of similarly rated personnel is responsible for their applicable equipment and associated tasks. Each division's senior E-6, or First Class Petty Officer, is designated as the division's Leading Petty Officer (LPO) and is directly responsible for the day-to-day operations of his division and for direction and tracking of all other enlisted division members junior to him. Each division also has a senior enlisted CPO of the same rating who is in charge of overseeing the division overall, and who serves as the liaison between the command team (CO, XO and DHs) for the division. The division LPO is directly answerable to the CPO. Additionally, the most senior CPO on board, usually a senior E-8 or E-9, is the Chief of the Boat or COB. The COB is the senior enlisted advisor to the CO. The divisions are grouped into departments by overall function, which are the responsibility of the Department Heads. For example, all engineering divisions are part of the Engineering Department, and all divisions associated with the ship's tactical and weapons systems make up the Weapons Department. All Department Heads are directly answerable to the CO and XO.

All junior officers (JO) are also assigned a division and serve as their Division Officer. While they have positional authority by title and rank, this authority is very limited, and indeed their position in the division is more as a figurehead. The division officer works directly alongside their division CPO and their primary responsibility is to learn. The secondary responsibility of every division chief is to develop and train junior officers. During their time as division officer a JO will learn how to lead a division, how to maintain division admin, and generally how to live and operate in the submarine environment. A division officer's Chief Petty Officer is his or her first guide and mentor—at least, that is the intent.

General life on board a submarine is also very different from that aboard other Naval vessels. Again, the 1995 Submarine Assignment Policy Assessment by Science Applications International Corporation concisely states some of these differences (pp. 18–19).

- The crew stands watch in six-hour shifts. A three-section watch bill converts submarine life to an 18-hour day with six hours on watch and the remaining twelve hours divided between training, maintenance, professional duties, eating and sleeping.
- The 18-hour rotation means that crew members cannot sleep at the same time every day. This disrupts the body's circadian rhythm.
- To accommodate watch standing, submarines, like other ships, serve four meals a day. To the individual arising from sleep, the next meal may be dinner, not breakfast.
- Drills are all-hands evolutions and handled as actual emergencies. Drills are frequently conducted several times each day. This provides further disruption to any "normal" routine.

Communication with family members is via email, but connectivity is not constant as on surface ships. Email can only be sent and received when at periscope depth (PD), and only then with permission of the CO as it is a time-consuming process, which further adds risk to the submarine's mission and safety. Additionally, no communications are private; they are each screened for content that could be detrimental to the mission if intercepted, such as elements of the ship's schedule or mission details. Incoming emails are also scanned for any negative personal news that may be deemed distracting to the person receiving it, such as deaths or divorces. It then becomes the captain's decision when and how the information will be delivered (SAIC, 1995). In the case of SSBNs, crews may be out of communication completely for multiple weeks at a time, as no transmissions are allowed when they are on station.

The final notable element of the submarine cultural environment that deserves discussion is the utter dedication to attention to detail, the pursuit of further knowledge and the great value placed on competency and self-sufficiency. On board, even the manner of speech is governed by the Submarine Doctrine for Interior Communications, or Sub IC Manual, in order to ensure quick, concise communications and to eliminate any confusions in meaning. This is vigorously enforced by leadership elements when personnel use speech not in accordance with the manual. Continual training and qualification is a way of life. Individuals are expected to be self-starters, they are expected to pull their own weight, and they are expected to seek continual improvement. For both officer and enlisted, earning submarine dolphins is the major milestone that signifies they are now a full and useful member of the crew. In fact, the culture is such

that prior to earning dolphins personnel are often tagged with the label NUB, or Non-Useful Body. Non-dolphin wearers are often not allowed in recreational spaces such as the crew's lounge, or in the wardroom during a movie; they are often denied dessert following a meal; their progress on submarine qualifications is closely tracked and if they fall behind a pre-determined progress curve then they are labeled as DINQ, or delinquent, and mandatory study hours are assigned. They are ridiculed if there is an impression that they are spending too many hours sleeping. Although most evident and worst when a submariner is un-qualified, this culture is pervasive on submarine crews and lends little forgiveness for incompetence, mistakes and especially lethargy.

**c. Selection**

Because of the unique setting, selection to subs, while remaining completely voluntary, is subject to a number of qualification requirements. These requirements are delineated in the Naval Military Personnel Manual, article 1306–402: Qualification for Assignment to Submarine Duty, which states “Candidates must exhibit the highest standards of personal conduct and reliability involving the operation and maintenance of submarines” (Bureau of Naval Personnel, 2007). This article specifies requirements related to minimum time of service, minimum scores required on sections of the Armed Services Vocational Aptitude Battery test, age limits, standards related to discipline and performance, considerations for prior drug use, and physical and psychological requirements, including successful completion of a special submarine duty examination.

Physical and psychological requirements are outlined in detail in the Manual of the Medical Department, U.S. Navy, Chapter 15: Physical Examinations and Standards for Enlistment, Commission, and Special Duty. Section 15–106 (Department of the Navy Bureau of Medicine and Surgery, 2014) specifically relates to submarine duty and opens with the following statement:

Submarine duty is characterized by isolation, medical austerity, need for reliability, prolonged subsistence in enclosed spaces, exposure to atmosphere contaminants, and psychological stress. The purpose of the submarine duty standards is to maximize mission capability by ensuring the mental and physical readiness of the Submarine Force.

This section (Department of the Navy Bureau of Medicine and Surgery, 2014) goes on to describe in detail all of the physical requirements of the examination. The general purpose is to identify any medical conditions that may cause an individual to be unable to effectively serve onboard a submarine, or which have the potential to disrupt submarine operations due to the need to conduct a medical evacuation (MEDEVAC) because a medical condition cannot be handled with onboard resources.

Any condition or combination of conditions which may be exacerbated by submarine duty or increase potential for MEDEVAC is disqualifying. Also, any condition, combination of conditions, or treatment which may impair the ability of one to safely and effectively work and live in the submarine environment is disqualifying.

Additionally, section 15-106 (Department of the Navy Bureau of Medicine and Surgery, 2014) says the following regarding assessment of the psychological health of the examinee:

The examiner will pay special attention to the mental status, psychiatric, and neurologic components of the examination, and will review the entire health record for evidence of past impairment. Specifically, the individual will be questioned about difficulty getting along with other personnel, history of suicidal or homicidal behavior (ideation, gesture, attempt), and anxiety related to tight or closed spaces, nuclear power, or nuclear weapons.

Finally, this section outlines several requirements that are specific to female submarine volunteers. Two of these requirements are medical and include a woman's exam within the preceding 12 months. The last female-specific requirement is submission of a NAVMED form 6420/2: Health and Reproductive Risk Counseling for Female Submariners and Submarine Candidates. This form must be signed by the examinee and certifies that they have been advised that:

- The health and reproductive risks posed to women by the submarine environment, if any, are unknown but thought to be small.
- Research programs have been implemented to detect any risks that may exist.
- To minimize exposure of the fetus to the submarine environment and avoid complications of pregnancy at sea, pregnant women are not permitted on board submarines at sea. Female submariners are strongly encouraged to avoid pregnancy while assigned to submarines.

The requirements and minimum standards set forth by these directives are meant to serve as a screening process to ensure personnel assigned to submarines are able to effectively work in the unique and strenuous conditions imposed by the submarine environment.

## **2. Study Participants**

Female officers who participated in the initial integration process of the United States Submarine Force were asked to voluntarily participate in this study. Though the researchers and sponsors of this study desired to maximize participation and ultimately preferred total population contributions, operational schedules and numerous other complicating factors dictated and limited the availability of women for interviews. Of the original 24, 16 were contacted and 11 became participants. Two participants were not in the first group of 24, but were among the first women to be integrated onto submarines. Finally, two participants were in the second round of integration aboard their submarines, meaning they took the place of a transferring officer.

While the women are from a range of backgrounds, they have similar educational experience. A small number (13%), had some prior enlisted background. All of the women are college educated, as all Naval officers are required to have, at minimum, a bachelor's degree. Some attended the Naval Academy, others attended a university with an embedded Naval Reserve Officer Training Corps (NROTC) command, and others obtained a degree prior to applying and being selected for service as a naval officer. Approximately two-thirds of the women are nuclear-trained officers (designation 1170 prior to qualification in submarines and 1120 after qualification), while the remaining women selected are Supply Officers (designation 3100). Upon reporting to the submarine, nuclear-trained officers had limited prior Navy experience besides their nuclear training, while the selected Supply Officers had prior experience serving on surface ships, had qualified in at least one warfare community, and were more senior in rank. This distinction was intended to provide a mentor/mentee relationship. Initial integration required that each submarine crew be assigned two nuclear-trained junior

officers and one warfare-qualified supply officer (Commander, Submarine Group 10, 2011).

The 1170 designation signifies an unrestricted-line nuclear-trained officer currently in training to become a submarine warfare-qualified officer. The unrestricted line designation indicates eligibility for future command of a Naval vessel. After achieving qualification in submarine warfare, these officers are re-designated 1120. Officers with an 1120 designation remain in the nuclear submarine community for over 20 years of their naval career, but can serve in some non-traditional tours on other ships after their first tour. The typical initial progression entails training at Naval Nuclear Power Training Command for six months, where they learn reactor theory, fluid dynamics, and other engineering-heavy topics in a classroom setting. After passing a comprehensive exam, submarine officers attend Prototype for an additional six months, where they receive experience with operating systems and standing watch on an operational nuclear reactor. A nuclear-trained officer's first tour of duty is considered the division officer tour. Thereafter, if an officer chooses to remain on active service they will progress through the positions of department head, executive officer, and eventually commanding officer, with shore duty assignments falling between each sea duty tour.

The 3100 designation signifies a staff corps officer who specializes as a business manager for the Navy. Supply Corps personnel provide sustained global logistics to all communities of the Navy as well as joint warfighters. The staff corps designation indicates that they are not eligible for command of a Naval vessel. The typical tour progression begins with training at Navy Supply Corps School for 20 weeks in the Basic Qualification Course that covers the major areas of afloat logistics. After graduation, supply officers are assigned to their first operational tour, typically on a ship. For their second tour, most supply officers serve on shore duty in a fleet logistical support concentration area. Prior to serving as a Department Head on an operational platform, whether on their first or second sea tour, supply officers return to Navy Supply Corps School for five weeks to attend Supply Officer Department Head Course (SODHC) for further training. Many of the participants were selected for their ashore and afloat experience to assist integration efforts, both in an operational and mentor role.

After graduation from their respective pipeline, all officers reporting to submarines attend the Submarine Officer Basic Course (SOBC), where they learn about sonar, navigation, and periscope skills. At varying points, personnel submit preferences for their platform assignment. For female officers in this study, they requested the type of platform (SSBN or SSGN) and homeport (Bangor, Washington or Kings Bay, Georgia). Male officers currently have more options, as they are able to serve aboard attack submarines as well as the Ohio class SSBNs and SSGNs, which opens five additional homeport options. The Navy detailing process attempts to assign orders that match up with one of each officer's top three preferences, but this is not always possible. Most officers are issued formal orders while in SOBC and upon graduation report immediately to their assigned ships for duty as a division officer. The first group of women submitted preferences and received orders prior to arriving to SOBC to assist in the integration timeline.

After reporting onboard, nuclear-trained officers must complete at least 12 months as an engineering division officer, so are assigned as soon as possible to be either the Main Propulsion Assistant (MPA) in charge of Machinery Division, the Reactor Controls Assistant (RCA) in charge of Reactor Controls Division, the Electrical Assistant (EA) in charge of electrical division, or the Chemistry/Radiological Controls Assistant (CRA) in charge of the Engineering Laboratory Technician (ELT) Division. After attaining all required engineering qualifications including Engineering Officer of the Watch (EOOW) and Engineering Duty Officer (EDO) and completing the minimum 12 months as an engineering duty officer, nuclear-trained officers are then assigned to a new division officer position outside of the engineering department, such as the Assistant Weapons Officer (AWEPS) in charge of the Missile Technician Division, the Communications Officer (COMMO) in charge of the Radio Division, or the Tactical Systems Officer (TSO) in charge of the Sonar Technician, Fire Control Technician, and Torpedo Divisions. In this capacity, they will finish their 36 months of assigned sea duty. Supply Officers are assigned as a department head for the entirety of their tour in charge of the Supply Department, which consists of the Culinary Specialist and Logistic Specialist divisions.

Following their engineering qualifications, nuclear-trained officers must complete a series of separate qualifications, often referred to as “forward quals.” These qualifications focus on the learning of all non-engineering ship systems, ship handling and dynamics, navigation and maritime “rules of the road,” periscope skills, damage control, employment of tactical systems, and other skills necessary to qualify as an Officer of the Deck (OOD) and Ship’s Duty Officer (SDO). Officer of the Deck is the highest position on the at-sea watch team. All other watch stations are subordinate to, and must report statuses to and request permissions from, the OOD. The Officer of the Deck is ultimately responsible for all evolutions conducted aboard ship during a watch and is considered the captain’s direct representative. The OOD gives all helming orders to ensure proper navigation of the ship and directly oversees all control room teams, including the navigation team, the sonar section, the fire-control party, the radio section and the ship’s control party. Ship’s Duty officer is the in-port equivalent to the OOD. Upon completion of all engineering and forward qualifications, officers are awarded their submarine officer warfare insignia, or “gold dolphins,” signifying they are now a fully qualified submarine officer, and their Navy designator is changed to 1120. Earning submarine dolphins is often considered the crowning achievement of the division officer tour. Qualifications do not end here, however. Each 1120 must also attend Prospective Nuclear Engineer Officer (PNEO) school, an additional 3-month training regimen concluding with a set of technical interviews at the office of Naval Reactors (NR) in Washington, DC, prior to finishing their division officer tour. Following successful completion of a rigorous, 8-hour exam and “passing” two out of three interviews at NR, they are officially qualified as a Naval Nuclear Engineer and become eligible for selection as a submarine department head. Failure to pass PNEO makes a nuclear officer ineligible to become a submarine department head, and they will likely not be allowed to continue service past their initial commitment without re-designation, which is rare in the nuclear community.

Supply Officers are not required to complete any engineering qualifications but they do complete many of the same “forward” qualifications as the nuclear-trained officers. They also learn about ships systems, damage control, ship handling and

dynamics, navigation, maritime “rules of the road,” and tactical systems, and qualify to use the periscope. Some Supply Officers even qualify Surfaced OOD, meaning they are qualified by the captain to be overall in charge and give helming orders when the submarine is operating on the surface. Most often, Supply Officers qualify and fill the role on the watch bill of Diving Officer of the Watch (DOOW). This watch station is the overall supervisor for the ship’s control party. This group consists of watch standers that operate the submarine control surfaces, which affect course and depth, and a watch stander who runs the ballast control panel (BCP). At this panel are the controls for numerous ships systems used for ballasting the ship: three separate hydraulic power plants, the hovering system, the emergency main ballast tank (EMBT) blow system, the ship’s high pressure air system, all ship’s alarms, and many other functions. The DOOW is overall in charge of this party and reports directly to the OOD.

### **3. Data Collection Procedures**

Data collection in qualitative studies often relies on interviews, observations and document review (Merriam, 1998). The data collection method chosen for this study was personal interview, and was based first and foremost upon feasibility. Most of the events intended for study, the integration of the first group of submarine females, had happened in the past, therefore negating the data collection method of extended direct observation, which is traditional in ethnographic study. Although additional submarines are still currently being integrated for the first time, and these events would most certainly fall within the purview of this study, time and operational constraints would not support such direct observation. The interview method was appropriate not only because the events to be studied occurred in the past and cannot be replicated, but also because it grants access to other non-observables such as individual feelings and interpretations (Merriam, 1998). As Marie (2001) asserts, “interviews gather data that reflect behavior, attitudes, and experiences that take place while the interviewer is not present” (p. 119). Data was also gathered through review of the limited available documentation of the process and is discussed in Chapter II.

The interview method can be broadly divided into two categories, guided and open-ended. The type of interview chosen by a researcher is generally based on how much knowledge the researcher has about the intended research topic (Field, 1996). An interview that is completely open-ended or unstructured is best utilized when the researcher knows very little about the topic. The open-ended interview has no predetermined structure or question set, because the researcher does not know what questions are relevant. This type of interview is essentially exploratory, intended to prompt questions for future interviews (Merriam, 1998). Guided interviews are best when the researcher has knowledge of the topic but cannot anticipate the answers to the questions (Field, 1996). These interviews can be highly structured or standardized, meant to solicit specific answers to narrowly worded questions, or semi-structured, designed with more flexible, open-ended questions to elicit an individual's unique perspectives (Marie, 2001).

A semi-structured interview process was most appropriate for this study. Researchers were knowledgeable about the topic and this format provided enough structure to ensure all desired topics were explored, while providing the flexibility to react to interviewee responses and allow open dialogue to flow (Field, 1996). During interviews, the researchers utilized an interview guide (see Appendix D) to assist the process. As Marie (2001) points out, as this was a semi-structured interview process, this guide was not meant to be a structured schedule or protocol, but a list of general areas to be covered and a sample of potential questions to be asked. During the interview process, the researchers re-ordered, re-phrased, or perhaps added additional questions as they deemed appropriate to fit the situation and further explore the comments of the respondents. Additionally, at the end of the interview, respondents were often asked if they had anything else they would like to comment on, interesting stories they would like to tell, or other opinions that they felt should be recorded.

Interviews were conducted in person face-to-face, via video telecommunications, and over the phone. When possible, interviews were conducted in person or with video in order to observe body language and other forms of informal communication (Cresswell, 2012) that are often vital to full interpretation of the interaction. All interviews were

voice recorded, with the prior written and verbal consent of the participant, then transcribed. To protect the privacy and confidentiality of respondents, each was assigned a random number to identify the interview, and all transcripts were meticulously screened for any identifying information, which if found, was deleted from the transcripts.

#### **D. ROLES OF RESEARCHERS**

In qualitative studies, data is neither gathered nor analyzed by quantitative means such as computers, gauges, or counting devices. Rather, the researchers themselves are the primary instruments for data gathering and analysis (Merriam, 1998). In this study, the researchers gathered data through personal interviews, then analyzed and interpreted the data to make suppositions and conclusions. Two areas that deserve discussion here are the potential effects this has on, first, the data collected through the interview process and, second, the data interpretation and analysis.

When it comes to data collection through interview, the researchers themselves introduce complexities into the process. This is a common criticism of this qualitative method. Alvesson (2003) describes an interview as a social situation that is context dependent, one in which social norms for how to express oneself and expectations of what the researcher wants to hear influence respondent behavior and thus the interview's ability to reflect reality. He goes on to point out that "many would, however, believe that establishing close personal contact with respondents—who then are seen as 'participants' instead—may minimize this problem" (p. 169). This describes an extremely important role of the researchers in this study, that which Alvesson (2003) would describe as an observing participant. Such a relationship exists between the researchers in this study and the participants because they are all full members of the same social group, have shared like experiences and challenges, can identify with one another, and share a cultural understanding of language and symbology. As Frey (1994, as cited in Alvesson, 2003) describes:

This makes the interview more honest, morally sound, and reliable, because it treats the respondent as an equal, allows him or her to express personal feelings, and therefore presents a more 'realistic' picture that can be uncovered using traditional interview methods.

The other major area of researcher influence, and criticism, is in the analysis and interpretation of the data collected. Merriam (1998) points out that the influence of researcher biases must be acknowledged in qualitative research.

One of the philosophical assumptions underlying this type of research is that reality is not an objective entity; rather, there are multiple interpretations of reality. The researcher thus brings a construction of reality to the research situation, which interacts with other people's constructions or interpretations of the phenomenon being studied. The final product of this type of study is yet another interpretation by the researcher of others' views filtered through his or her own.

This realization often causes concern that the analysis produced does not do justice to, or accurately mirror, the phenomenon under study as it actually existed (Alvesson, 2003). It is here again that it is useful to point out the role of the researchers in this study as active members of the societal group. Karra and Phillips (2007) point out that for an outsider it is often difficult to develop an adequate degree of cultural sensitivity. When the researchers come from within the group, however, "the problems of cultural competence, linguistic skill, and access would be reduced and the resulting research would have a greater degree of 'authenticity'" (Marvasti, 2004, as cited in Karra & Phillips, 2007). Therefore, the autoethnographic approach provides a greater level of "ethnographic authority" (Wellman, 1994, as cited in Karra & Phillips, 2007).

## **E. STRENGTHS AND LIMITATIONS**

Many of the strengths of this type of research study were previously discussed in this chapter within the discussions of ethnographic, autoethnographic and case study designs. A number of general limitations apply to all studies of this design as well. Such issues include the fact that qualitative research is often not generalizable to the larger population and so lacks external validity (Marie, 2001), and the issues of bias discussed in the previous section, which may lead to limited objectivity and influenced or invalid conclusions. The following section focuses on the limitations and strengths unique to this study.

The major limitations of this study have to do with its scope, both in terms of the number of participants and the research and analysis methods used. As with any study

that requires volunteer participation, the participants have the option of declining to take part in the study. In this study, five of the initial 24 females, and five from subsequent generations, were successfully contacted but declined to participate. It is useful to recognize “no” responses because they qualify as positive contacts and provide additional data points, but it should also be recognized that this might introduce bias into the study. It could be postulated that many of the “no” responses may be due to some experience or perception that was shared across this group of the population. If this were true, failing to gather this data would skew the resultant conclusions and assumptions. Additionally, contact was attempted with initial and subsequent women, with no response, further limiting the sample population.

As previously discussed, participant observation, which is a key process of traditional ethnographical research, was not feasible for this study. As Creswell (1998) points out, a true ethnography is a lengthy and involved process in which the researcher studies the meanings of behavior, language and interaction of a group through not only interviews, but observations of its members while immersed within the social setting as an active participant. In this study, participant observation was not feasible due to constraints in time and resources. As a result, the study was limited to personal interviews for purposes of data collection. Additionally, Creswell (1998) also asserts that the product of traditional ethnographical research studies typically comes in book-length form. Again, time and resources constrained the level of analysis that would be representative of a true ethnography, and a more surface-level review was conducted to identify common themes and make general assumptions that can later be tested more rigorously. In this regard, this project is more representative of a multiple case study. It is the researchers’ hope that the data collected as part of this study will aid and inspire such future research.

The unique strengths of this study are a direct result of the composition of the research team: one, a 15-year career submariner and the other, one of the first 24 females integrated who has 15-years of experience in the Navy. Their biographies are included in Appendix E. This provided three distinct advantages. First, being members of the community being studied, the researchers were intimately familiar with the culture; the

language; the physical, psychological, and operational environment of the submarine; and the command and operational structure of the crew—all aspects of the social environment that an outside observer would have to spend countless hours observing and learning about to truly understand. Lack of this learning curve allowed this research project to commence immediately, at a time when many of the first female submariners were nearing the end of their commitments, transferring to other communities, or simply would not have remembered their experiences in any useful detail. Had this project not been autoethnographic in nature, these truly unique lived experiences would never have been captured.

Second, being full members of the community allowed a deeper level of understanding and more thoughtful analysis of the data acquired, within the time constraints imposed by educational and service requirements. Dialog from interviews could be immediately understood without translation of acronyms or other submarine-specific language. Stories of experiences could be understood in their context with no need for further explanation. An outside researcher would achieve much less understanding in a similar period of time.

Third, the social position of the researchers in the community, one post-department head and one post-division officer, put them in a unique position of trust among the study participants, as they were also at a similar level. Also, the researchers were not assigned by an Admiral or a Navy policy office; they were not command-level officers. They were mid-level officers who embarked upon this research project of their own volition and who had only one year prior been in the exact same position as the study participants; they were insiders. Combine this with the promise of complete anonymity and the best possible chance emerged to get the “real story,” to understand what was truly being experienced, thought, felt, perceived and believed by this group of submarine force pioneers. An additional advantage arose from this situation as well. One could easily imagine an ambitious individual preying on the naivety of an outside observer to paint an over-rosy picture of themselves or their situation for their own gain, or perhaps out of desire to not make waves in their organization; or conversely, to

maliciously portray their situation in the worst light possible. Both are situations that would be immediately apparent to an insider.

A final strength of the study is that the knowledge and experience of the researchers put them in the perfect position to ensure complete confidentiality and anonymity of the participants so that they could feel comfortable telling the real stories of their experiences. This was paramount, as it maximized inclusion in the study and allowed for better communication flow during interviews.

## **F. CONCLUSION**

With the data collected as described in this section, the researchers could then turn their attention toward analysis of the interview transcriptions in order to provide answers to the main research questions. As interview transcriptions were analyzed, themes were identified and conclusions drawn regarding the questions posed by the study. Supporting commentary was identified and annotated on paper copies of the transcriptions for use in the next chapter. Pertinent data was consolidated and notes taken on a case summary form, which is included as Appendix F for use in future research that may follow the model of this study. The rich data set provided excellent insight into the complex social process of female integration onboard submarines, as well as other topics that were somewhat outside the original scope of this study but which also warranted discussion. The results of this analysis are presented in the following section.

## **IV. CASE SUMMARY AND ANALYSIS**

The major goals of this study are twofold: 1) to create a rich data set, capturing the lived experiences of the first group of female submariners for follow-on studies; and 2) to provide an analysis of the data that will address the main research questions. The primary research questions are: How would the first women to join the submarine force generally describe their integration experience? What factors supported or hindered their integration? What was the character of the organizational culture and how did it affect their experiences? Have their experiences affected them, professionally or personally, and, if so, how? What do the participants see as the benefits of their integration? In this chapter, these questions are addressed using interview commentary to support the researchers' conclusions and to express the opinions of those involved.

Analysis provided a description of the general experience of the participants. Due to constraints on the researchers' time and resources, however, the analysis was limited to a cross-case evaluation, seeking to create generalizations from the details of each case (Merriam, 1998). Common themes were identified, and these discussed in detail in this chapter by research question. Additionally, several themes emerged that are beyond the original scope of this study but which warrant mention and are thus briefly discussed. These themes include views concerning the Supply Officer's role as mentor, potential advantages of female integration that may not have been previously perceived, factors affecting female retention, and opinions regarding the future integration of enlisted females onboard submarines. Discussion of these themes is provided for potential future consideration.

### **A. PREFACE**

Before delving into the analysis of this complex social phenomenon, a number of assertions must first be discussed. These are acknowledged by the researchers and should also be considered by the reader.

First, the source of data for this study is personal accounts of events collected through interviews. While the effects of the researcher on this process are discussed in

Chapter III, it is now important to acknowledge the impact of the interviewee on the production of these data. As personal accounts, these data are necessarily subjective, molded by the participants' beliefs, biases, psychological traits, and attitudes (Alvesson, 2003), as well as a multitude of other factors. Additionally, responses may be affected by poor recall or simply poor articulation (Yin, 2009). In this study, these factors are taken as given and considered ultimately uncontrollable.

Second, this study focuses primarily on external factors that influenced the integration process. It is important to acknowledge, however, that the "success" of an individual's integration is not only a product of external influences but also of personal traits such as attitudes, drive, commitment, and social skills. The participants also recognized this fact, as conveyed by an interviewee in a personal communication: "I mean a lot of it just has to do with our personalities, I think. You know, how we integrated and built relationships and things like that." In this study, no attempt is made to evaluate such personal attributes as to judge participant fitness, ability, or suitability in the context of their situation or experiences.

Third, excerpts from the interviews conducted are used to support findings or to express views. It is necessary at times to take these comments with a proverbial "grain of salt," as participants who perceived their experiences to be "poor" tended to use strong language accentuating negative connotations, and vice versa for those experiences characterized as "excellent." Each experience, perception, or opinion described here should be viewed as a data point from which something may be learned.

Finally, it must be acknowledged that critical scrutiny in pursuit of honest self-assessment is rarely an easy process. The nature of this study itself, as an organizational ethnography, creates unique challenges. Alvesson (2003) points out how organizational studies such as this may create political dilemmas, especially for management, as they often result in data or analysis that works contrary to efforts to maintain organizational prestige. As Alvesson (2003) writes:

Good organizational ethnographies often portray their objects of study in non-flattering terms. Actually, hardly any social setting comes out of an ethnographic study unblemished. Most well-done studies working beyond

front-stage and the level of image-production produce some far from positive descriptions and analysis. This may be one reason for us being more inclined to study the others rather than ourselves. (p. 180)

While this statement proved true to some extent, this study also reveals many positive and encouraging results. The researchers made every effort to ensure unbiased analysis of the data and intended in no way for this study to reflect poorly on the submarine community or its leadership. The data and analysis presented provides an authentic recount of a process that occurred within the organization, as perceived by its own members. It is meant to provide a launching point for further research from which the organization can learn and grow and to capture data that may have otherwise been lost.

## **B. THE POPULATION**

To provide perspective, the following is a breakdown of the population of participants and a general description of their demographics and background. To begin this study, 25 female submarine officers were successfully contacted. Of the 25 contacted, 16 were from the first group of 24 females selected for integration. Following initial contact, nine declined to participate in the study, and no additional reply was received from one. This left a total of 15 participants, 11 of whom were from the first group. The final group of 15 participants included nine nuclear-trained officers and six Supply Officers.

Two-thirds of the participants (ten) came from families in which at least one member of the immediate family, parents or siblings, had some military experience. Of this group, six had family members with Navy backgrounds. The participants came from a variety of educational settings. Four attended the Naval Academy, seven attended ROTC programs in college, and four used a commissioning recruitment program. Nine received technical degrees and six were non-technical majors. Two of the women were prior enlisted.

When asked of their initial intention to make the Navy a career or simply finish a single term, seven were undecided, four intended to complete one term, and four planned

on completing a career in the Navy. Motivations to join the Navy were varied and included factors such as the desire to complete a college degree, family background, feelings of patriotism, wanting the Navy experience, and starting a career. Dominant among these motivations was college, family, and patriotism. When asked about motivations to join the submarine force, responses also varied, but again, common themes emerged. Motivations included experience on submarine cruises, either as a Midshipman or a rider; perceptions of the nature of submarine personnel as being elite and of the highest caliber; and the small, tight-knit family nature of submarine crews. Also mentioned was outside encouragement from family members or from members of organizations where participants had previously worked. Such encouragement often came from prior submariners at ROTC units or other work environments. There was also much interest in the nature of the submarine mission, as it was perceived to be more interesting or “cool.” A dominant motivation throughout most of the interviews was the perception of the people and crews, as captured here:

So I think the one thing that really made me decide submarines for sure...just the prospect of being able to work with such a high caliber of people and to do some incredibly awesome things...I just wanted to be a part of it. (Interviewee, personal communication)

I think I like the way the submarine community and the camaraderie is more than I do the surface. So when they said hey, you can go on submarines I was like, alright, let's do it. Let's try this. (Interviewee, personal communication)

I really wanted to lead people. That was one of the biggest reasons I joined the Navy and I realized in aviation that wasn't going to happen until like ten years in, and in submarines I could do that day one and with probably the most elite people in the Navy. (Interviewee, personal communication)

As discussed in Chapter III, women were assigned to SSBNs and SSGNs on both the East and West coasts, in Kings Bay, Georgia and Bangor, Washington. Of the 15 participants, six were assigned to SSBNs, eight were assigned to SSGNs, and one served aboard both types of ships. Nine were stationed on the East Coast and six on the West Coast. Additionally, seven participants were single and eight were married. Interestingly,

all eight married women had spouses who were also in the Navy, most of them also submariners.

### **C. THE GENERAL EXPERIENCE**

To answer the main research question of how the participants would describe their integration experience, each interview was analyzed and divided into four categories, based subjectively on the researchers' analysis of the quality of their integration experience. Experiences were rated as overall excellent, good, neutral, or poor. This assessment was based on evidence provided within the commentary, compared across all interviews. Also factored in was discussion of whether participants would again make the decision to join the submarine force based on what they now know, their intentions to remain in the Navy, and whether they would return to submarines for a second tour (in the case of the nuclear officers) or if they would ever consider going back to a submarine (in the case of the Supply Officers). These last discussion points were only considered to the extent that they actually served to inform the analysis of the quality of the integration experience. For example, in instances where an individual's description of her experience could be described as good or excellent, but she indicated she would not return to the submarine force again, the quality rating would remain unaffected if it were clear that the decision not to return was unrelated to the integration experience itself. There were certainly extremes among the participants. At the high end, one participant described her experience as follows:

My experience was so special on that boat. Like I would definitely do it again. I would definitely do it again. I felt like I was really lucky to have the crew that I served with. Like overall, I was very happy. I just definitely think that experience alone was very unique and I am so glad that I got picked up for it and I am so glad that I volunteered and did what we did.  
(Interviewee, personal communication)

At the other end of the spectrum, however, one participant's experience led to an attempted suicide. These extremes bookend the study, and are perhaps worthy of closer examination; this is, however, best left for future research, as it is beyond the scope of the present project. Between these extremes, the experiences of the population of participants were rated as excellent in two cases, good in six cases, neutral in three cases, and poor in

five cases. It is worth noting that the total number of evaluations sums to 16, which is due to one participant having served on two different submarines. These results are summarized in Table 1.

Table 1. Count of Participant Overall Experience by Quality Rating

Overall Experience	Participants
Excellent	2
Good	6
Neutral	3
Poor	5
Total	16

Analysis begins to describe the integration experience in very general terms. To further explain these results, contributing factors are identified. Discussion of these themes also serves to answer the next two research questions and to describe experiences in more detail.

#### **D. SUPPORTING AND HINDERING FACTORS**

The question of what factors supported or hindered integration efforts helps to explain participants' overall views regarding the experience. While a myriad of individual contributing factors could be used to explain these results, several common factors emerge that are useful in drawing more general conclusions. In general, a factor was considered supporting when differential treatment was minimized, command leadership promoted climates of professionalism and mutual respect, and the initial socialization period was minimized in terms of both duration and severity. Conversely, when the opposite occurred, a factor was seen to hinder the process. Another supporting factor was the mentorship role played by the senior female Supply Officer, both for the nuclear-trained female junior officers as well as for the command team. Finally, a hindering factor unique to the female Supply Officers was the perceived respect shown to their position as a department head. Each of these themes is discussed in more detail in the following section.

## **1. Differential Treatment**

Perhaps the first major theme, which became clear very early on in the interview process, was how attuned the participants were to perceptions of treatment that they were considered to be different. This perception seemed to often translate into feelings of inequality. In all but two interviews, participants made a deliberate point of discussing instances in which they felt they were being treated differently than their male counterparts. Many instances were very blatant examples of differential treatment, but some may be considered relatively minor. In describing her experiences at submarine officer basic training, an interviewee offered the following observation during a training event:

...they told us we should wear our t-shirts and shorts to go into the tower. I was like, that was just ridiculous, but okay sure....it was just me and one other girl that had to experience it because, afterwards, we were like it's not really a thing, you don't really need to make them wear t-shirts and shorts. It's—we have standard Navy bathing suits just like everybody else.

When speaking about a senior female officer who had been recently sent to be staff at a training command, two different participants recounted the organization's efforts to provide a female mentor.

...the word on the street was that she had been sent there because she was a female nuke, to be able to like mentor...the general feeling there was, like, don't talk to us, we don't want to be special. (Interviewee, personal communication)

...that was just kind of the only time where I felt, like, why are we sitting here, why is it just us? (Interviewee, personal communication)

It is these seemingly benign occurrences that are the most telling. The fact that participants would make it a point to discuss such experiences illuminates the sensitivity of the subject.

The phase of integration that generated the fewest comments regarding differential treatment was Nuclear Power School. This is not surprising due to the fact that female nuclear Surface Warfare Officers routinely attend the curriculum and the

school operates on a very set, regimented schedule. Participant experiences at Prototype training were somewhat dissimilar.

The training schedule at Prototype is not purely academic as is the case at Nuclear Power School. Successful completion of Prototype requires many hours of training on an operational nuclear power plant. Training hours must be split among all the students and the amount of training time available is often affected by equipment malfunction or other uncontrollable circumstances, which also often introduces delays in student graduation. For the first groups of women, such delays had the potential to affect their training timelines and, ultimately, the dates they would be able to report to their respective submarines. Attempts to mitigate these delays also resulted in numerous perceptions of inequality and multiple comments by study participants. Here are two examples:

[An instructor] came up to me and there was one other female in the section and he pulled us aside and he was like, “look, you two need to stay ahead of the curve. I already have to send a report about you every single week”...What happened to us not being treated any differently? Are you giving weekly reports on everybody else?...I didn’t understand why, you know, we were being watched like hawks. Well, I understood it, but at the same time I was like this kind of makes me feel like you are not treating me like the guys. I would prefer to be treated like the guys. This is already weird enough being a female on a submarine. (Interviewee, personal communication)

Definitely made it clear that since I was like the first class and they had a deadline to get us to our boats...So that kind of stood out to me a little bit. (Interviewee, personal communication)

Prior to reporting to submarines, all participants, both nuclear and Supply Officers, were required to attend the Submarine Officer Basic Course (SOBC). Unlike the nuclear training pipeline, women had not routinely attended this course. Not surprisingly, this phase of training also generated a variety of comments regarding differential treatment, such as this:

Sub school was pretty interesting. We—so we noticed—they put the four of us girls in the same section, so everybody else was alphabetical and the rest of us were put in the same section....Then the thing that bugged me was on the grade sheets our names were in red and everybody else’s were in black....that was another one of those things where it’s like, we are not

being treated like the rest of the guys. (Interviewee, personal communication)

One training exercise, required during submarine officer basic training, involves conducting a simulated underwater escape. An incident at this training simulator generated comments from five separate participants. One participant's account is as follows:

...We were all ill in some way, shape, or form. We got cleared by the doc to not do it....So none of us got to do it and then after everything was all said and done, like 20 minutes later, the [instructor] wanted to meet with us and he pulled us into a separate room. Didn't pull any of the guys in there that didn't do it....he berated us and accused us of lying and all that fun stuff. (Interviewee, personal communication)

Comments about differential treatment were not only generated during the training phase of integration. Multiple instances during a participant's time on board the submarines were also discussed, as recounted in these two comments:

It did get frustrating around the time when we were supposed to qualify...we were just in limbo for two or three months not really knowing what we needed to do....she and I were qualified officer of the deck, the two other guys weren't. So [the guys] qualified fish and officer of the deck at the same time. We had a three-month gap. So I don't know, maybe it was just that we weren't ready in his eyes. (Interviewee, personal communication)

So I remember after we kind of got settled, the [evaluation] team was just like silent and it was weird because usually they are up in everybody's face and they said to my XO, they are like, "We have never seen a female officer of the deck before." It's like, what? They were shocked. Like absolutely blown away that not only like I was a female, I was qualified officer of the deck. They were like, "She was giving orders to those guys and they were listening." It was just like it absolutely floored me that they were so surprised that this girl had just dove the ship and the command trusted the girl to do that. I was actually pissed, but it was also I was really riled up. Like, fuck you guys. Like why couldn't I do that? (Interviewee, personal communication)

Not all commentary concerning differential treatment carried a negative connotation. Further, some were very telling of how rooted the desires were to be considered an equal among male counterparts. Two participants offered the following

opinions regarding experiences that would likely be viewed as very positive by many people:

...getting my dolphins. That was—it was a very bittersweet day. I did it pretty quickly in comparison to most of the JOs on my boat. I probably worked myself a little bit harder than I should have to get them in the time that I did. Then having like such a huge press release with it where CNN and Fox News and everybody was there. I just wanted to be normal and I just wanted to be one of the guys. It was really hard to do that when the external community kept making it a big deal. So I think that was a big milestone, just realizing—it was a big realization for me that no matter what I did I wasn't going to be normal. (Interviewee, personal communication)

...when we all went to see the President. That's kind of hard to explain to your guys, like oh well, I am just a normal JO. That's what we have been preaching for the last you know, x amount, and that's how you are expecting me, but now I am going to visit the President. So that was really frustrating. (Interviewee, personal communication)

While it was apparent from the commentary that participants were sensitive to instances of perceived inequality, it was also clear that they were equally attuned to behaviors that sought to limit differentiation, as seen here:

So there was this big push to get our group of girls to SOBC on time....So they started coming up with these plans. "Hey, you guys are going to work double shifts and the girls take priority and they get the watches and you know, you don't get days off, you just have to keep coming in" and all this bullshit. We actually had a pretty legitimate staff XO who caught wind of that...basically said "stop it, this isn't how we do business." You train them the same as the men. (Interviewee, personal communication)

Our XO had been a big part of women in integration....I mean he just said it outright as soon as we got there..."Hey, they are not to be treated any differently. They are here, it's not a big deal, they are just junior officers." I think instead of trying to hide it and tiptoe around it, just saying it outright everyone was like okay, we are moving on. (Interviewee, personal communication)

The following excerpts are meant to serve as examples of the acute awareness of treatment that seemed in some way differential. The implication is not that differential treatment necessarily results in a poor integration experience; in fact, many of the preceding comments were from participants whose experience was characterized by them

as anything other than poor. The point is simply that there is an effect. When cross-analyzing these descriptions of experiences, it is clear that the general opinion of the population was that they desired to be treated as equals. Behaviors, inasmuch as they tended to promote inequality, were generally harmful to the process, while those who sought to reduce it were generally beneficial. One participant offered the following conclusion:

...the biggest thing is that remaining normal. I think that's the most important thing for a JO to be successful is to be given the same standards and held to the same standards and not treated differently. (Interviewee, personal communication)

## **2. Command Climate and Leadership**

Command climate and senior leadership appear to have the greatest overall impact on the success of the integration process. This topic was raised in one form or another in over 80 percent of the interviews conducted. The commentary on this subject, as represented below, highlights how vital a command climate conducive to integration can be in the process.

Yes, so my command was really great...I think that's the key for the leadership, you know....it has to be managed on an individual leadership level. The COs, the COBs, the XOs, and the department heads setting the right tone. (Interviewee, personal communication)

Where there were some hiccups along the way on submarines, I think that can be entirely attributed to the command climate, which is not just because of the CO, XO, and COB. I mean everybody contributes to that... (Interviewee, personal communication)

Within the topic of command climate and leadership, three similar but distinct sub-themes emerged that explain aspects viewed as necessary in creating a successful climate. It is worth noting that these sub-themes are heavily intertwined with the participant's desires to achieve equality. The first of these is the necessity of setting a tone of professionalism and respect that would promote uniformity and teamwork at all levels. Command leadership that did this well established a culture on board, based on professionalism and respect, that promoted genuine buy-in from every member of the

crew and set the right foundation for not just the women, but for everyone to be successful. The following comments address this theme:

I would like to say it was our professionalism....So I think probably the buy-in from my chain of command made a big difference....we had a very professional culture. They communicated that down to the crew that this is acceptable behavior and this is not. So yes, I think absolutely that is a huge contributing factor to a non-issue integration. (Interviewee, personal communication)

I think it's the baseline that the chain of command established....the CO and XO on my second boat really set the standards for a professional atmosphere and a comfortable atmosphere. I think that made all the difference in everything. (Interviewee, personal communication)

...our command had that good culture because [the CO's] opinion was that inappropriate behavior is inappropriate and if you wouldn't do it in front of your mother, don't do it on my ship because I'm not going to put up with that. So that was the culture before we even got there...that's a culture decision by the leadership. (Interviewee, personal communication)

...dignity and respect. That was the policy onboard, everyone shall be treated with dignity and respect and as any other sailor coming onboard to get quals. (Interviewee, personal communication)

The wardroom is the wardroom and we are brothers and sisters in naval service and we support each other and we defend each other and that's what I expect from you when you interact with the crew. Nobody is talking crap or anything about any of the officers of the wardroom. If you hear that, it's your responsibility to stop it as a fellow officer....That's what we did. (Interviewee, personal communication)

It was equally as obvious to participants when the command team was disengaged or disinterested in promoting a command climate that valued formality and professionalism, and when mutual respect was not enforced.

My captain—I mean he's a good CO, but he definitely let things happen in the wardroom that I don't think should have been happening....the environment that he's allowing to happen, I did not agree with it at all. (Interviewee, personal communication)

I don't know how the process had gone on the crew before I got there, but again, I think it was a professionalism difference. I felt like the second crew was much more professional and I think that really set a standard for

the differences between where the two crews were at. (Interviewee, personal communication)

...near the end, like I was saying, the culture, and this was the culture driven by the CO, the command team....at the end of the day it did cause bad behavior by lots of people. (Interviewee, personal communication)

The second sub-theme seen to support an environment conducive to integration is a leadership stance that serves to downplay the process, or at least discourages excessive attention. In this vein, successful leadership efforts tended to promote normality and ease the transition for the entire crew, as seen here:

Their attitude was kind of like this is going to be a non-issue. There is no issue here. We are going to treat everyone the same. So there was kind of genuine buy-in that these women deserve to be here, so everyone is going to deal with it. (Interviewee, personal communication)

...the command just did a good job of letting them know that hey, you know they are just like any other DIVOs that come to your boat. I am also sure that the wardroom really helped out with that because they too made us feel like we are just the new DIVOs that came on that don't know anything. But that's a really good way—I mean everyone gets treated like that, so I am okay with it. (Interviewee, personal communication)

My CO's big mantra was, "be normal." They are not female JOs, they are JOs. They are normal, we are treating them normal. Their quals are normal, their behavior is normal, our behavior toward them is normal. (Interviewee, personal communication)

With my first CO, he was pretty—he was straightforward. He was—a couple of times, "this is different, let me know if things aren't okay." But he also didn't make it a huge production ... (Interviewee, personal communication)

The last theme discussed across multiple interviews is the extent to which leadership was actively involved in the integration process, and how leaders would anticipate issues. In some cases, leadership was perceived to purposefully remain detached and disinvested. This was seen as damaging to integration efforts.

I would have liked to have more of a relationship with my second CO, but I think he really shied away from dealing with the female junior officers, which was—we thought we were a little bit crazy at first. Like hey, this isn't—is this happening, is he really just avoiding us? Ultimately I am not

sure if he was intimidated by our personalities or if he really was intimidated by the fact that we were women, but he spent a lot more time and invested a lot more time and energy in mentoring the male JOs than he did mentoring us. (Interviewee, personal communication)

It's like they just talked vaguely mostly along the lines of, you know, don't screw a midshipman....[The CO] just seemed like this distant guy, like he always seemed super distant to me. (Interviewee, personal communication)

On the other hand, participants often took notice when command leadership took an active interest in the process and confronted issues directly. Active leadership also promoted an environment in which the participants themselves felt empowered to speak up and address issues. This was seen as having a positive impact.

...the command element really made the nonsense, the things that could have got in the way, that wasn't just really there. But, I also think that the girls that we had on our sub, the women, were not afraid to say something I think that was really key. If you are in a work environment where you feel like you can't speak up if you have been offended, that's not really a good environment to be in. (Interviewee, personal communication)

I think in the beginning stages, upon taking the boat, there were little speculations that they were giving favorable treatment to females in terms of qualifications. But, I think that was squashed pretty quickly... (Interviewee, personal communication)

I had this meeting with [the XO] on a weekly basis....the XO would spend a lot of time seeing and evaluating where they were in the process, it was a good sign to me. I think it was just a great chain of command and they knew it could be something that's...a very big deal to the ship. They just really wanted to make sure it was done the right way. (Interviewee, personal communication)

If guys make inappropriate comments, it's corrected on the spot. I think that [boat name] did it the right way by just truly in how leadership approached the integration, and that was that there wasn't one. (Interviewee, personal communication)

Commentary offered by many participants regarding perceived differences following a change of command serves to highlight the effects of command leadership and climate.

...so the once really tight wardroom turned into a little bit bigger split between the JOs and the department heads and up. Yes, so everything I had seen when I first showed up was kind of unraveling for a while. (Interviewee, personal communication)

...my first CO was really great. My second CO also really great, but less strict about behavior and things definitely started to deteriorate. (Interviewee, personal communication)

The command that I reported to, the boat definitely met the expectations of the camaraderie that I was expecting. Unfortunately, the CO that I reported onboard with left at the end of my first run, so I only had him for about three months. The XO that I had left three months after that. So it was a complete chain of command turnaround six months after I showed up. Unfortunately, it was for the absolute worst ... (Interviewee, personal communication)

It is readily apparent from the experiences of the participants how important good command climate was to the success of the integration process, and, at the same time, how destructive poor leadership could be. This command climate must be driven from the top and fostered at every level of leadership. Of all the factors that contributed to the quality of the integration experience, leadership and climate likely have the largest effect, and this effect is lasting. Experiences by at least two participants indicate that good leadership and climate are even more important and beneficial during initial integration. Conversely, poor leadership and climate are likely the most destructive influences on integration efforts. During this sensitive stage, setting the right cultural foundation is vitally important. Additionally, once it is set, even the ill effects of poor follow-on leadership are greatly reduced. Two participants, who both felt that their initial command leadership and climate were excellent, described their experiences after a change in command leadership as follows:

Yes, there was definitely a climate change and I think that would probably happen with any new CO and new XO and new COB. I just think that the way that the [new] captain specifically was trying to communicate his goals wasn't a very—I will use his word—it was a very draconian way. I think people just naturally don't like that...as far as the women in submarines part, I think that, you know, our sub just kind of kept it at a high level, and I think that part of it, once you know, the initial command element left, was just people standing up and saying something if they

thought that hey, this isn't appropriate. That was both guys and girls. (Interviewee, personal communication)

I don't think that the crew's perspective changed drastically with the change in the leadership....we were in the shipyard at that point and the CO and XO, like I said, were not supportive. That led to an overall decline in the command climate, overall. But, we were—I would say overall we were still all in the same mindset together. (Interviewee, personal communication)

### **3. Socialization Period**

Another prevalent theme in this study was the initial socialization or “warming up” period that occurred between the crews and the participants upon reporting to their commands. This period was discussed in over 90 percent of the interviews conducted and was characterized by feelings of standoffishness, nervousness, avoidance, fear, and difficulties in communication. Understandably, crews were apprehensive and perhaps even a bit fearful about the prospect of introducing women into their community, which they had known to be male for as long as they had been members of it. The participants often expressed this period in negative terms, as it generally enhanced feelings of inequality and differential treatment. While a warm-up period would logically seem to be expected, discussions of it often elicited rather strong feelings among the participants, as observed in these comments:

So guys were actually pretty shy when I got there. Like for me, working with male sailors wasn't really a big deal. I have done it before on a surface ship, but guys were actually pretty shy....So, that just bothered the crap out of me, so I basically said, “Okay, this has to go and we have to break the ice.” So I tried really hard to break the ice and actually get to know the sailors, all the male sailors basically. I think that helped me a lot. (Interviewee, personal communication)

They actually made us feel a little unwelcome by being so stuffy and formal and far away, or at least in my case it felt like that. (Interviewee, personal communication)

When we came to the submarines the crews were, one, scared shitless that women were coming and two, like very highly trained as to what was proper and what was appropriate and what was not. (Interviewee, personal communication)

...there was no animosity. It wasn't combative at all. It was really awkward because they just didn't know how to talk to me. I was new, I understand that, but being a female on top of it, being a female, they just didn't know how to approach me. (Interviewee, personal communication)

I get to my boat and I start qualifying and I am super excited to be there and I loved talking to people about everything from the forward end of the boat to the aft end of the boat and it only started dampening down a little bit as I realized that they weren't excited to talk to me. They actually didn't even want to associate with me in anything but the most stiff and professional manner ... (Interviewee, personal communication)

The initial training regimen that crews were required to complete prior to integration was often cited as a major contributor to the severity of the warm-up period length. Most participants agreed that this initial training was at least somewhat valuable to the process, but many also indicated that it seemed rather excessive. It was widely agreed that the extensive training seemed to have bred a level of animosity toward the new female officers, and that it ultimately detracted from integration efforts by exacerbating and lengthening the warm-up period.

...they are so scared of women. That's like really my initial assessment of them, is they were scared shitless, probably you know because of the training by the command. The command scared them into being really nice. This is not how people behave...just relax and be normal, please. (Interviewee, personal communication)

The crew had gotten a lot of training before we showed up as far as sexual harassment training, integration training. They had, I don't know how many hours or how many topics, but they had to be certified for integration, based on the training that was conducted. So some of the guys had told us later on, that they were afraid that anything they said to us could be taken the wrong way and it would be our word against theirs and they would get masted for sexual harassment....I used to joke with the XO the first week or so, like when we were doing casualty drills it was like, "XO, just follow me. I will clear a path for you." (Interviewee, personal communication)

I know before we got there, there was a whole bunch of female orientation training and so they were probably still pretty nervous from that. You could see they were a little bit worried about offending us more than if they hadn't gotten all of that. (Interviewee, personal communication)

The crew thought that it was an overkill. I think they were just bombarded with all of these trainings because the crew had to be certified prior to receiving females. (Interviewee, personal communication)

Many participants indicated that one of the main reasons this training aggravated the warm-up period was due to its heavy focus on issues related to sexual harassment. This focus resulted in such ardent efforts to avoid contact with women that it interfered with not only the ability to converse with male crew members to gain knowledge for qualifications, but even with normal daily routines such as conducting wake-ups for the oncoming watch section. Some comments also indicated topics that would have been beneficial—such as procedures for entering female staterooms, general professionalism, and proper use and care of sanitary facilities—were often altogether neglected in initial training.

Everyone stops paying attention after the first slide because they have had it for the last 16 times. So negative connotation is already put with being a female on a submarine because you made me sit through training that you didn't have to go through....There is a requirement for—I think there is an instruction—there is part of the instruction tells you how to enter a female's room. Tell you in two years—two years—the crew changed a little, but not a lot. I could never get someone to enter my room correctly. I even posted a sign. I put it on pink paper. I highlighted it yellow. I put it outside my door. I put it outside the CO's stateroom and I put it outside the wardroom—and the crew's mess. Because I wanted it to be perfectly clear how to enter my stateroom. So instead, I just didn't get people to enter my stateroom at all....They weren't meaning to be rude or disrespectful or anything like that, it's just that fear that trouble will come because I went through this training that says if I do anything wrong to a female it's going to be hell and high water. Stay away from them because you will be fine. You can't get in trouble if you don't interact with them. (Interviewee, personal communication)

Well, from everyone that I spoke to, ad-nauseam they had more SAPR training than anything. I am of the opinion that is not directly related in any way to integration, especially on submarines. If you have three or four women in a crew of 100, up to 150, 200 people...your focus should just be on a generality of hey, let's make this environment professional. It was clear to me, sitting through SAPR training with everyone else, that we were blamed for a lot of this SAPR training that they had to deal with because it was overkill. It was poor timing because that was the time when the Navy started doing a lot more SAPR stuff, but it was still overkill....I think it's unrealistic to think there is not going to be swearing onboard. I

think it's unrealistic to not think that there's not going to be R rated movies that have nudity. What I do think is realistic is to expect people not to be running around naked, talking in really disgusting phrases and terms that they may have been used to doing, having missile tubes that have half naked women when you are about to pull into port. But, I don't think that has anything to do with integration, I think that has more to do with being professional and having a professional work environment. (Interviewee, personal communication)

...someone saying offensive things shouldn't happen anyway, but someone explaining how a valve works and having to use words like the lead screw and the head...shouldn't be unprofessional, because that's what it is called. But the guys are like, oh, I don't want to say the wrong thing and have them take it as I am trying to be too sexual with them. We were in port for only about a week before we got underway and the attitude of kind of standoffish was there throughout the in port period. After we got underway, after we actually started working and standing watch and spending more time with a watch team, they quickly realized that one, we weren't the type of people that would take something completely out of proportion and two, we weren't the type of people that would address it in that manner. (Interviewee, personal communication)

I will never forget this one Fireman, A-gang fireman. Big guy. Big, strong, buff guy. Totally mortified to come and wake us up. Completely just—I mean shaking in his boots. I finally noticed that he was kind of lurking outside of the door and said, “What's going on?” “I just don't want to be disrespectful. I don't want to offend anybody.” (Interviewee, personal communication)

It was clear that the initial warm-up period was an obstacle for nearly all of the participants. Once past this hurdle, however, experiences generally improved, as these comments indicate:

...so they stopped walking on eggshells, they started being normal around us and just getting the job done, which was a major relief. (Interviewee, personal communication)

...guys were pretty shy. But...some—a few guys came to me and actually talked to me and introduced themselves on their own, which was really welcoming....breaking the ice with the rest of the crew, that was a big challenge, but I think that we actually did it really well as far as getting to know each other. After we broke the ice, things were just fine. (Interviewee, personal communication)

The initial warm-up period cannot, in itself, be viewed as a hindrance to integration, as it would be naive to not expect its occurrence, and all participants experienced it across the board. Therefore, the warm-up period was taken as a given by the researchers, and its impacts on quality of the integration experience were judged only as a function of its length and severity. Behaviors leading to command environments that tended to lengthen the process or intensify its negative impacts were viewed as detrimental. Command efforts to shorten this period, or lessen its effects, were perceived to enhance the integration experience. Not surprisingly, this was best achieved through strong command leadership that supported a culture of equality, as evidenced in the following comments:

The COB is the one who actually is the one who put the fear of death into the crew. He was very effective at it. It still exists today that they won't do things like give you wakeups because messengers will not walk into a female stateroom....they just expressed that they had been threatened with losing their jobs if they had done something to make us feel that the program wasn't working. (Interviewee, personal communication)

I felt like we were immediately accepted, which I am sure was really hard to do at first because we were totally different, just totally different having us there, but I felt like everyone was kind of nervous at first and then obviously once they saw that we weren't aliens, we were just normal people, they kind of warmed up to us....I am sure the command just did a good job of letting them know that hey, you know they are just like any other DIVOs that come to your boat. I am also sure that the wardroom really helped out with that because they too made us feel like we are just the new DIVOs that came on that don't know anything. (Interviewee, personal communication)

#### **4. Supply Officers as Dual-Purpose Mentors**

A topic discussed in over 85 percent of the interviews was the role of the Supply Officer as a mentor. Current policy requires that a Supply Officer with previous warfare qualification be assigned to any crew that is integrated. These experienced female officers are intended to fill the department head position onboard and serve as a mentor to the inexperienced, female nuclear-trained officers. A good deal of discussion occurred on this topic, and many opinions regarding this role were gathered from the participants, leading to some interesting and informative conclusions. First, it was unanimously agreed

among all participants who discussed this topic that, for the initial integration, great value could be achieved in having a senior female mentor as part of the process.

So initially, I think that obviously it was a good model to use...I think it would have been really tough if I went to the submarine by myself....I think specifically if we had any female issues, you know if I felt like I was being discriminated against or people were being offensive, it would naturally be easier for me to talk to a Lieutenant female department head vice a male, but obviously as I was on the submarine longer and I was more comfortable with everyone, I could talk to anybody about that....I just felt like she was a sounding board for us and then also for questions that we didn't want to ask, we could ask her and then she would go ask for us. So yes, so it was good....the female department head model is a good one, whether or not it necessarily needs to be the Supply Officer... (Interviewee, personal communication)

I don't know if it necessarily needs to be a Supply Officer, but I do think having the Supply Officer on there initially was really helpful, just for the crew to see someone who has had experience in the fleet before and to understand those interactions because for a JO, they haven't developed their leadership style yet. They don't necessarily know what kind of impact something they say is going to have. A lot of the guys felt comfortable talking to me and not to them because of my experience in the rest of the Navy. So I think it's valuable to have a senior woman on there... (Interviewee, personal communication)

...I really appreciated the fact that they put a lot of thought into it and I really appreciated the fact that they sent a kind of more senior Lieutenant out to sea with us when we were Ensigns....we didn't know if this was just a JO issue or if this was a female issue. So just, kind of having a sounding board, and someone we could talk to...I don't think there was ever anything that we couldn't have handled on our own, but it was nice to have someone there that we knew would advocate for us and have a little bit more weight and experience with the Navy....my personal thoughts on it is that for initial integration I think there is value in having Supply Officers there. I think there is tremendous value in having these experienced women who can advocate on gender issues. (Interviewee, personal communication)

Another perceived advantage of having a senior female department head as part of initial integration was the role that they played, not as mentors to the other female junior officers, but as mentors to the command team. Participants expressed the opinion that the

Supply Officer's role as a liaison and counselor for command leadership was equally as valuable.

I didn't necessarily expect to be like mother goose or anything for the two girls, but I do know they confided in me and they asked for advice, and that was great, but I felt like the person that I impacted, or the people I impacted the most were the senior enlisted, the crew, and the first CO that I had. He respected my opinions and he would bounce things off of me to see if it made sense. The XO, when he tried to ask me to approach one of the girls for something that he should have approached her about himself, I told him no, I wouldn't do that. I am not just the person that talks to the girls. That's not really how that relationship works. As an XO, you need to learn how to talk to the women as well. They are your junior officers. (Interviewee, personal communication)

...she was also kind of a figure head so that she could talk to the XO and the CO about how we were doing in general and you know, I think that's definitely true. I think that she kind of was a liaison to them just as much as to us. (Interviewee, personal communication)

I think that you know, as scary as it was for us, I think it was much more scary for our department heads, our XO and our CO, because they really didn't know how to talk to us in a lot of instances. So yes, I think having a more senior female that they felt they could relate to or is more experienced that they could use as a sounding board as to how to mentor us or talk to us about certain issues....Honestly, I think that my second CO didn't know how to talk to any of us. It was just kind of a little bit comical, but also a little bit disappointing. (Interviewee, personal communication)

I definitely had to mentor the CO and XO. I remember the XO came to me one day and said, "Hey, I need you to talk to the females...I don't know how to bring this up to you and I just thought maybe you could help me talk to them. Or, it's probably just easier for you to talk to them for me." We had a closed-door conversation after that... (Interviewee, personal communication)

...my second CO actually came and asked me about my opinions or you know, my recommendations on certain issues that involved female JOs. The CO actually would rely on me on things like that. Yes, so just being an advisor to the CO and mentor for, not only the female JOs, but also like just the crew in general. (Interviewee, personal communication)

While it was agreed that having a senior female mentor was important for the initial integration, many participants indicated that having that role filled by a Supply

Officer also created unique challenges. Some opinions were that the vastly different roles of the two groups created an inevitable disconnect. For example, it was difficult for Supply Officers to identify with nuclear officers because they had not gone through the same experiences. It was also expressed that additional difficulties arose because the Supply Officers assigned to be mentors for the submarine officers were not themselves submariners yet.

I think it was good initially. I think it's a hard sell to have a mentor that's not your same designator. I think initially we were told that as soon as a female officer got senior enough, a nuke female gets senior enough, there wouldn't be that requirement, but it's still sitting and, from what I hear now, they will continue to have female Supply Officer department heads until a nuke comes back as a department head. (Interviewee, personal communication)

...I think that initially it's a great model to use, although the idea that you have these two brand new nuke Ensigns and a seasoned Lieutenant as their mentor...didn't really work like that, because all three of us were trying to figure out what the heck a submarine does and how it works. So as far as someone who we could go to, I get it that it's built in, but if we needed specific advice on this pipeline and just submarine stuff, we had to go elsewhere for that anyway. So it was kind of tough to say, like to have, a mentor who wasn't really in the program more than we were, I guess. It was tough. (Interviewee, personal communication)

...I felt like she was struggling to qualify and getting so much shit from the wardroom, that made it hard for her to be able to mentor us. ...it was definitely hard for [my Supply Officer] to have that mentorship role because she was in the process of qualifying and a lot of the time she was trying to get her quals done because she was getting so much shit from everybody for not being qualified, just like the rest of us were. (Interviewee, personal communication)

I do think that the three girls that are there now, like in a big Navy way, they know that they can ask me questions and I can give them an answer that is not—I am not pulling it out of my ass or anything. But, they also know that I am not sub savvy...I don't know anything about subs. (Interviewee, personal communication)

I think senior JOs are more suited to mentor junior JOs and that's the way it has been and that's the way it should be. I think the problem initially was just getting a senior JO. (Interviewee, personal communication)

I think that a female nuke is better qualified to lead a female nuke than a female Supply Officer is. (Interviewee, personal communication)

Perhaps related to the fact that their intended mentor was not a submariner, some participants indicated that they sought guidance from male members who did have experience in the submarine force. In doing so, they realized they could find equally, if not more, effective mentorship from male crewmembers. When the mentorship role was filled by more senior male crewmembers, it was often viewed as supportive to integration efforts.

I think at first I thought that you know I necessarily had to have a female mentor, but once I kind of got to know everybody I realized that wasn't the case, that I got some really valuable insight from all the department heads and from the other JOs and from the CO and the XO. (Interviewee, personal communication)

I think in terms of a professional role model, I look to the male submariners because I want to drive submarines, they have experience driving submarines and that's really when I want to talk about my career path and my opportunities or should I go back to sea, they can give me the insight and the perspective that I kind of need to make that decision. (Interviewee, personal communication)

I think at a certain point after you have had women onboard for a couple of years, like the boats that I have been on, I don't think you have to have three people—three women onboard at all times. I don't think you have to have a [female] Supply Officer. I do think that you should be able to interchange male and female very easily as long as you have some good people that are in the chain of command that can act as mentors—not just women, that also frustrates me. You know, some of my best mentors have been men. I don't think it's bad to have a female mentor, but don't—it's not one size fits all. So I don't know, until they start really considering the force integrated—well, to me it's not really integrated until they are able to interchange a male with a woman at any point in time. (Interviewee, personal communication)

Many observations also discussed the continuance of the policy that a senior, female Supply Officer be required on all integrated crews. Concern was expressed as to the maintainability of this policy, and several participant opinions reflected beliefs that, not only should this no longer be a requirement, but also that maintaining the policy may

have damaging consequences. In this respect, the senior supply officer policy is seen as initially supportive, but may transition to a hindrance for the fleet.

I think it's unfortunate that we don't have female 1120 role models in the submarine force, but we just are not there yet. So in terms of past initial integration, should we continue to have the Supply Officers? I think that the requirement is kind of crippling our expansion and I think it's probably hurting the supply community as well in trying to provide such a large supply of women to the submarine force. (Interviewee, personal communication)

You know, I think that I understand the submarine integration plan of having a Supply Officer with two nukes. I understand at the very beginning that was incredibly important, but I think at this point in time, especially on the already integrated boats, it's not essential to keep that female Supply Officer there. I think it's hurting all women, I mean, the Supply Corps, they really struggled with that too. A lot of those women, their tours are getting messed up because of it, but I think it affects the nukes as well....they have limited themselves a lot in the instruction that they have written... (Interviewee, personal communication)

Now to maintain it, I think it is...I don't know how maintaining it will really work. (Interviewee, personal communication)

The female Supply Officers were being extended just because someone from up on high said; thou shalt not replace female Supply Officers with a male Supply Officer, which is one, not part of the initial policy, two it's not what you told everyone that you put onboard. So if you tell me that I am going to have a normal tour or in my case, my detailer said because of your seniority we are going to take you off earlier, you need to follow through with that....I know their intention is good, but again I had those two other nuke JO females who at that point had been onboard for two years. There is no reason why you couldn't have replaced me with a male. (Interviewee, personal communication)

...initial integration I think it was wise to put that there. But, what they want is for us to stay there until they come back as a department head, which just isn't going to happen. I don't know of a single one of the first 24 female nukes that are going back to the boat. (Interviewee, personal communication)

For the initial integration efforts, the choice to have senior, female Supply Officers perform as mentors seems to have been a success. For crews that have been integrated for some time, however, the policy seems to be more of a handicap than a

benefit, at least in the views of the participants. It also seems apparent that female members of the submarine community feel the role of mentor should not be bounded by gender or rank.

## **5. Supply Officers as Department Heads**

One final theme was specific to the Supply Officers, but had a great impact on their integration experience and is worthy of discussion. Many Supply Officers, as well as nuclear-trained officers, discussed difficulties that resulted from assigning more senior female officers, both in rank and experience, to the submarine environment. The Supply Officers selected for integration had all previously completed tours outside of the submarine community, and they had previously earned a warfare qualification from another community. When introduced to submarines, they filled a department head role as the command Supply Officer. While this position is considered a department head role on submarines, in practice, personnel filling this role are often treated as more of a division officer. This is likely due to the fact that, historically, the officer assigned to this role is a first-tour officer with no prior experience.

I think it's tough also to put a Lieutenant in a billet that's usually for an Ensign or a JG. I think that was a tough position to put a brand new female who's never been on a submarine before, because naturally we think of it as a department head job, and it is. But, I feel that, on a submarine, that Supply Officer job is not seen at the same level, so it's hard for someone to go in and say, "I am supposed to be a department head Lieutenant, but everyone's kind of treating me like I am an Ensign or I am a JG who's not a department head." (Interviewee, personal communication)

...we all know how the Supply Officer is viewed in the wardroom...you are almost not treated as another department head in some respects. Right? So I think it was hard in that sense... (Interviewee, personal communication)

The new female Supply Officers immediately perceived this distinction, and it was troubling in that they felt no respect was paid to their previous Navy experience or their rank.

I did have a lot of issues with integrating with my crew in general. That's because, just I am not an Ensign and I am not a first-time Supply Officer. This wasn't the first time I had been in a department head role. It wasn't

the first time I had been around males. It wasn't the first time I had done any of that stuff. It was just in a different environment. Being in a different environment versus not having that education at all is completely—they are two different aspects. Well, unfortunately my sub, my community—I say my community as in my submarine itself, my crew—saw it as the same thing....We are quite different and I needed an upper chain of command support, they would normally not have to give, to make sure that the difference was expressed by their voices and by their commands and their actions on the boat. (Interviewee, personal communication)

I had a hard time with the whole department head/junior officer separation with such a small wardroom. I had a hard time convincing anybody that I wasn't a junior officer. I am not—I wasn't a first-tour officer, so don't talk to me like I am an Ensign, which happened a lot. My first XO was notorious for leaving me off of emails where he wanted department head input on certain things. That I think comes more with rank versus male/female integration. (Interviewee, personal communication)

One final sentiment that was shared by some Supply Officers was the disconnection they felt from the wardroom. Many felt that they were very much alone in their role onboard. Again, this was a function of their job and their seniority. They were not only viewed as something less than a full department head but, due to their seniority, they were also separated from the social community of the other junior officers, which a typical male Supply Officer would normally fall into owing to their junior status.

...because we are the non-submarine designated officer basically in general, it makes it very hard, and just to be a lone person...who is a 3100 in a wardroom of 14 or 15 people. It's very tough because they all have very different jobs and the fact that you don't stand in-port watch, for example, makes you a very easy target. (Interviewee, personal communication)

It may be different because most of them are males and they are Ensigns and so they group up with the JOs and they can talk amongst themselves and not necessarily talk to the other department heads, but they spend most of their time with the JOs. It is what you do. So they have more in camaraderie. More accepted. (Interviewee, personal communication)

## **E. SUBMARINE CULTURE EFFECTS**

Another topic that garnered much discussion from the participants was the general culture of the submarine force. It is important to differentiate submarine culture from

command culture. While command culture is driven by individual leadership teams and is different on each boat, submarine culture is pervasive throughout the community. As discussed in Chapter III, this culture is shaped by the great value that is placed on competency and self-sufficiency, and it lends little forgiveness for incompetence, mistakes, and especially lethargy. Each individual is expected to be a self-starter, to pull her or his own weight, and to seek continual improvement. Constant training and qualification is a way of life.

The first exposure to submarine culture, upon reporting, is typically related to the qualification process. Through this process, submariners gain adequate knowledge of ship systems and procedures to enable them to fill watch stander roles onboard. They are not able to support the rest of the crew on the watch bill, which rotates personnel through these watch stations, until they are certified to do so through the qualification process. For this reason, qualifications are emphasized early and often. In fact, upon check-in, many personnel are told they are already behind in their qualification progress, as one participant recalled:

Monday was the first real workday and, at that point, it was your check-in sheets and making the rounds to meet everyone that you needed to and getting told that you are already behind in quals. That was the first real experience that we had with the crew. (Interviewee, personal communication)

Some participants recalled their initial exposure to the submarine culture occurred even before reporting to their boat. One participant who worked with retired submariners gave the following account when asked if she had received any advice after being selected to participate in the Women in Submarines program:

They gave me some advice. Really, all they told me, is they started calling me NUB. I needed to get qualified as soon as I could. (Interviewee, personal communication)

Another recalled the following conversation with her father, who was a retired career submariner:

You know, from the time I knew I was going to a boat, my dad said, “you are a NUB.” You know, so I knew that was going to happen. Bust your

butt, it's not going to be very pleasant for the first, however long, because it's a long process for everybody. The first year is usually not the most pleasant because you are so busy trying to qualify. (Interviewee, personal communication)

New personnel are often referred to as NUBs, or Non-Useful Bodies, and are not considered full and useful members of the crew. Until qualified, officers and enlisted alike often get little sleep and are denied access to recreational spaces, are not allowed to have dessert following meals, are not allowed to join the crew for movies or other similar activities, as these are considered privileges. While most aspects of this culture are generally viewed as unpleasant, especially during the time before qualification is achieved, it can be argued that it is of great value to the community, as it establishes a strong work ethic and sets standards of what is expected at the outset. In more extreme cases, however, when left unchecked, it can lead to a toxic environment of disrespect, judgment, and inequality, and create deep-rooted feelings of resentment.

The manner in which different elements of submarine culture are affected by command leadership and climate can also be considered supporting or hindering factors to the integration experience, but are discussed here as a separate topic to specifically explain the effects of this culture. Specific cultural themes, including the value of self-sufficiency, effects on professionalism and respect, sleep deprivation, feelings of intellectual superiority, and implications of the submarine force's attitudes toward self-improvement are discussed in more detail in this section. In each of these categories, efforts to limit the harmful effects of these cultural elements were supportive to integration, while it was hindering when these elements were allowed to evolve to unprofessional levels.

It is worth noting that submarine culture is not a gender-specific experience; it is encountered by all members of the community and affects everyone. The commentary presented in this section is from the perspective of the first female officers, but similar sentiments could easily be obtained from male crewmembers. Nevertheless, the fact that the influence of submarine culture is not gender-specific does not negate its importance in describing the integration process.

## 1. Self-Sufficiency

During this process, the value that the culture places on self-sufficiency often becomes immediately apparent, as non-quals are often expected to dig into the books and self-teach, with little outside support. While this mentality is common, it is present in varying degrees. In the more extreme cases experienced by participants, this stood out as a major barrier:

...as a JO, you are basically handed your book of six million quals and said go. You know? I will get you in line when you go astray. (Interviewee, personal communication)

I think the answer to the submarine force for inadequacy of knowledge is to just give you more time to study. I did get more time to study, but that doesn't work for me. That doesn't help. "Here, read this." Reading something doesn't make sense to me. (Interviewee, personal communication)

...you are giving her all this shit for not being qualified, but she's coming to you like, "Hey, I just read this pub and I'm not—I'm trying to talk about it and you are telling her to go read it again. She just told you she read it." So I felt like you know, [my Supply Officer] is a great person. But I felt like she was struggling to qualify and getting so much shit from the wardroom, that made it hard for her to be able to mentor us. (Interviewee, personal communication)

If I ask for help, I am literally just asking you to help me. I don't want the—I do not want you to tell me to go look it up because I didn't ask you for that. This is just—once again, these are different cultures. So I came from a surface background....If I asked someone for help, they would either say they didn't have time, which is fine, or they would help when they could and that normally meant kind of by being hands on or teaching you. Like come and see this....but submarine culture is more like go read it and then come ask me questions and then go read it again, come ask me some more questions. Then, maybe I will take you to the place where it is, but I am really just going to show you a diagram in front of the thing that you need to learn. (Interviewee, personal communication)

"Okay, talk to so and so about this one and this one and then talk to this person about this, get them to initial and we will do a spot check and we will sign it off." I would go and do that and I would spend a good 30 minutes talking to this person and making sure I completely understood everything that I needed to know, I would get them to initial and then I

would go and do the spot check and he was like, “Okay, good.” Then wouldn’t sign it. (Interviewee, personal communication)

## **2. Respect and Professionalism**

Many participants discussed the utter lack of respect that was sometimes observed between qualified and un-qualified personnel. While a measure of professional pressure from qualified personnel is likely appropriate, in some cases, where the submarine culture is left un-checked, this relationship can devolve into something wholly unprofessional and damaging. These consequences were often difficult for the more senior women. Regardless of their prior experience and accomplishments, many felt they were not paid due respect because they were not qualified in submarines:

I think the biggest—the most submariner thing that I guess I don’t like, is the...way that the qualified JOs talk to the nonquals. It’s like you are not a real person yet. You know, they never talked to me that way and I know I am in a different category, but if I had been one of the JOs to walk into something, I would have been like hell no. I am grown. You cannot talk to me like that, because I don’t care who you are. So that was a little disheartening, I guess. (Interviewee, personal communication)

...it was definitely a culture thing. They were definitely of the opinion of, “I got shit on when I was qualifying, so I am going to shit on you.” They just made every interaction a living hell. It got to the point where I wouldn’t go and ask for help...They would look at me and be like, “You are such a fucking idiot. How can you not understand that?”...I just stopped asking for help and I got horribly behind in my quals... (Interviewee, personal communication)

...they treat everyone like that, which is a horrible culture. I don’t know how the submarine force will ever change it, if they will ever change it. As long as you are not a submariner, you are not a submariner until you get your pin. Until then, they refuse to respect you. (Interviewee, personal communication)

Like the [guys] that showed up around the same time as me, they were great. They hated the way they were being treated as much as I hated it...nobody deserves to be treated like that...everybody’s a human being and deserves to be treated like a human being regardless of whether or not they have gold dolphins on their chest. (Interviewee, personal communication)

...in the submarine force, obviously you are not a whole lot of anything until you qualified dolphins...You know, I am not walking on this boat completely unqualified to do my job, but in their minds, until I am wearing dolphins, I am not really qualified to do anything, which definitely is a bit different than I had experienced in the past...there was some disrespect in the fact that you don't have your—you are not wearing dolphins, they don't respect the experience that you already have in the Navy. (Interviewee, personal communication)

I think it was hard for [my Supply Officer] because she was still trying to qualify and even though she's been in for nine years now and she is qualified surface and aviation, the JOs, they still treated her like shit. Like I watched her go through the same stuff that I went through... (Interviewee, personal communication)

Another aspect of the submarine culture that became a point of conflict for the Supply Officers was the great value placed on qualifications and the ability for everyone on the crew to be able to support the watch rotation. Many of the Supply Officers wanted to be just that, Supply Officers. They felt, however, that on their submarine, they were often expected to first fill the role of a watch stander.

...my job is not to be a Supply Officer, which for two years annoyed the piss out of me. My job was to be a watch stander. I would like to tell you that at the end of the day, I will get sent to jail, not because I wasn't a good watch stander, but because I wasn't doing my job as a Supply Officer. But I think that is a submarine culture too. (Interviewee, personal communication)

I wanted to get there and be a Supply Officer. I didn't want to be Battle Chop and they kept calling me—the master chief said I was going to be Battle Chop and I was like, nope. No desire to be Battle Chop. I just wanted to do my job and move on with life. Obviously my submarine had different expectations. (Interviewee, personal communication)

### **3. Sleep Deprivation**

It is common for un-qualified personnel to sleep very little during their qualification process. Personnel with whom they are required to talk are often in different watch sections with different time rotations. This requires the person qualifying to stay up during the time they would normally be sleeping. Also, many qualified personnel are attuned to the amount of time non-qualified personnel spend sleeping, as a level of sleep deprivation is expected to advance qualification timelines. In fact, many new members

sleep very little voluntarily to get ahead in their progress and display that they are self-motivated. Unfortunately, in some cases, this cultural mentality becomes warped to the point that qualified members can view sleep as a privilege and exert a level of pressure that becomes unprofessional.

I didn't expect to be awake so much when I was qualifying, I didn't expect to do the two hours of sleep in two days and that be okay and almost be the expectation for somebody qualifying. (Interviewee, personal communication)

[The XO] was like, "Why the hell haven't you slept in two days?" I was like, "Because you all told me to get hot and get qualified and the only way to do that with this crazy eight-hour shift that we are now doing is to basically stay up all day because I have to talk to chiefs and they are each on a different watch section." I am being told to go to sleep and now the other JOs are giving me shit because I am sleeping, which apparently is a privilege you only get when you get dolphins on this crew and it was—it was just a mess for me. (Interviewee, personal communication)

We went out, did our deployment, I have never had so little sleep in my life, which was a really big thing for me. (Interviewee, personal communication)

#### **4. Intellectual Superiority and Constant Improvement**

Participants also discussed elements of the culture unrelated to the qualification process that they found troubling. Some perceived an attitude of intellectual superiority inherent in the community. This attitude was not only directed toward those who were not yet members of the submarine community, but also toward those who were considered junior members.

...they kind of talk to you like they feel you are dumb and I just didn't—it didn't sit well with me. They have an ego, the sub guys have an ego...I really feel like they just think you are dumb. They think that you are dumber than them and they talk to you like that. (Interviewee, personal communication)

So for me to not understand—I do remember one of the instructors saying in the beginning of class—I can't remember what we were learning that day, but he was like, "For all my Supply Officers"—I don't know why he said that, because there was only one and I had always been there—he is like, "Don't worry about the course. You will get through it with lots of study. Supply Officers have always had a hard time understanding this and

I will try to dumb it down a little bit more so that you can understand it better.” (Interviewee, personal communication).

...that’s how we are treated until we become department heads, we are pretty much treated like we are dumb as rocks. Obviously not, but you know that’s how we are treated....JOs on my boat are generally seen as stupid and no matter how hard you work or what quality of work you give, it’s not because you did well. (Interviewee, personal communication)

A final mentality discussed was the degree to which cultural ideals of constant improvement are applied. While this is certainly a valuable trait of the submarine community, it can sometimes be applied to such an extreme that it diminishes or completely disregards successful accomplishments. In these cases, the position that “we can always improve” is sometimes construed as “nothing is ever good enough.” While there may be a fine line between these two concepts, and this perception is likely driven heavily by individual personalities, it is still worth noting.

I had moments of “oh my God, I did well.” Usually immediately crushed with, “you could have done better by—.” It’s like yes, I could have done better by—okay, but could you start it with, “You did that really well, next time add this and this.” Just not deconstruct every; you could have done better, just alright, add the next layer. Like always constructive, instead of destructive....I feel like I spent my entire time here failing. I have evidence of things that I did well. I have examinations where I was directly involved and worked my ass off and we did well and I am not proud of any of it. (Interviewee, personal communication)

My XO’s first way of dealing with people was that tough love, and it wasn’t—Now it’s you know, he has a joke about only giving a JO one compliment a year. He has gotten to the point where instead of giving like direct compliments like, “You did a good job.” He will tell a JO they did a good job by telling them that they did a bad job for something that they did good. It’s so backwards and really hard to explain... (Interviewee, personal communication)

It should be emphasized that this discussion is not intended to cast a negative light on the submarine culture. Indeed, the submarine force owes much of its success to its culture and the positive effects it engenders. This discussion is valuable to the study as it highlights elements of the culture that, when left unchecked, were perceived as having ill effects on the integration experience, and that can be damaging overall. Perhaps a more valuable result of examining weaknesses is that success is often found in behaviors that

serve to address them. Many participants offered descriptions of experiences that tended to moderate the negative aspects. While many could be considered minor victories, they are examples that offer the greatest potential for learning.

...my division was great. I know these guys [A Gang] are the hardest working guys on the boat and they, you know, if I have a question on something they are willing to be like, “yes, I can take ten minutes of my time and explain something to you.” (Interviewee, personal communication)

I kind of struggled doing check-outs because I am a hands-on kind of person and I am not a book kind of person. So trying to look at a manual was a little bit intimidating for me, but I had—especially the nukes. They were like, “Hey, go and talk to so and so.” I would go and talk to so and so and they would kind of give me a break down and that was really helpful. (Interviewee, personal communication)

So obviously a lot of the guys there, the more senior guys, helped me out a lot with quals and the more junior guys who had just kind of been where I was made me feel like I am not crazy, this is really just a crazy experience. (Interviewee, personal communication)

For the first time in over two years someone more senior than me stopped me, while I was working, and said, “You are doing a real good job, thank you.”...I was so ecstatically, brightly happy. I had not been given any positive reinforcement in so long, it was like a ray of sunshine, shining through the entire ocean to reach down into my submarine and light up my day. (Interviewee, personal communication)

## **F. PERSONAL AND PROFESSIONAL IMPACTS**

Another objective of this study is to explain qualitatively the ways in which the participants felt their experience affected their professional and personal lives. Not surprisingly, conversations often turned immediately toward the subject of retention. Aside from discussions related to retention, however, which are important and analyzed in detail in this section, most participants described the impacts of their experiences in terms of personal and professional growth and mentorship.

### **1. Personal Growth**

Many participants described personal growth in terms of leadership, teamwork, assertiveness, and even sarcasm. Others expressed feelings of increased confidence and

maturity, and some recognized, through their experiences, that they were capable of achieving more than they had previously thought possible.

I think—and this isn't just because of being a female, but it proved to me that I could do more than I thought I could. I don't know, just the amount of confidence I have now is way different. (Interviewee, personal communication)

The submarine experience for me was just, generally, probably just the toughest thing....it's something I look back and I realize whatever I am going through right now, if I can go through submarines, I can go through this. (Interviewee, personal communication)

I think being a submarine officer certainly taught me how to assert myself and taught me some confidence. It taught me how and when to yell at people if that was necessary....So I think my personality has certainly changed a little bit, just kind of, you have to be a little bit crazy to be a submariner, so I think I developed a little bit more of that. (Interviewee, personal communication)

It's made me a better officer, I will give you that. Made me a better leader, in terms of the fact that I didn't want to get involved in the bigger picture, but being on a submarine that kind of becomes negated in being involved on the larger scale and knowing what's going on in other departments and divisions. (Interviewee, personal communication)

...my job is senior advisor to the captain and a mentor to JOs. That actually helped me to get even more mature, much more mature than I used to be. (Interviewee, personal communication)

I think, you know, it was probably one of the hardest things I have ever done and I definitely woke up some mornings thinking..."I don't want to go to work today." I think kind of pushing through that experience and, by the end of it, I kind of came into my own...I think that's kind of empowering to say that I went from this point to where I didn't think I could do this to, you know, really enjoying what I was doing. (Interviewee, personal communication)

Some impacts were perceived to be slightly less positive:

I would say that I am probably a lot more cynical than I was. Some of the things that the submarine force, I guess, instilled in me, isn't necessarily a bad thing. I have a lower tolerance for people not doing their jobs, which you know it's not necessarily a bad thing....I think personally it has been a lot more stressful, made me more cynical and critical. (Interviewee, personal communication)

The experience was also seen, on a professional level, as opening doors to new opportunities and serving as a catalyst for self-reflection:

...having been on a submarine tour which was so personally tough, made me realize that I have a lot of personal shortfalls that I need to look back and rethink about and reassess. So I think it was a great learning experience for me, is what I would say. (Interviewee, personal communication)

I think that I learned some really valuable tools about leadership and teamwork that I didn't know before. I also just think it was really fun and even the hardest times...I got some really great tools from it that I hope I can use later when I get out of the Navy. I mean professionally, I guess, I have a lot of really great mentors now, that I honestly didn't think I would ever consider as my mentor before, just considered them as my enemy, but yes. So I think I learned from some really great people and, professionally, I hoped that I developed some things that I could continue to use in the near future. (Interviewee, personal communication)

Except for the most extreme negative cases, a consensus was found among the participants that they had learned valuable lessons. Although their experiences were not always pleasant, participants reported gaining confidence by overcoming adversity and becoming more effective and professional leaders.

## **2. Mentorship**

Many participants expressed that their personal and professional lives were enhanced in the area of mentorship. First, they indicated that they established valuable and lasting mentor relationships with others.

I mean professionally, I guess, I have a lot of really great mentors now, that I honestly didn't think I would ever consider as my mentor before, just considered them as my enemy, but yes. So I think I learned from some really great people and, professionally, I hoped that I developed some things that I could continue to use in the near future. (Interviewee, personal communication)

Second, participants often realized that they themselves developed into mentors for the other female officers. A common opinion was that, once they had been on board for a sufficient time to learn the culture and earn their submarine qualification, they could easily fill the mentorship role for newly reporting officers. Not only could they fill the

role, they were perhaps better able to mentor than a senior Supply Officer, since they had now successfully transitioned through all the stages that newly reporting female JOs would soon go through. Some participants recalled that, as senior, qualified JOs, they indeed felt that they were the ones who actually ended up filling this role, which was very empowering.

I felt like we did fill that role. Our Supply Officer was extremely bogged down and just trying to run her department, so as new females came onboard, you know, we served—we kind of served that role. I felt like we became the mentors for the new females. (Interviewee, personal communication)

I think it's valuable to have a senior woman on there, but at the point where one of the JOs has been onboard for you know, a year and a half, two years—I don't necessarily think that the Supply Officer needs to be a woman anymore. (Interviewee, personal communication)

I think that as these female Ensign 1170s mature into 1120s with three years on the boat, they kind of become more natural mentors to the new women showing up. Mostly, just because professionally and personally they can relate to them better. (Interviewee, personal communication)

### **3. Retention**

Retention is a topic of great interest to the Navy and the submarine force. Until now, the sub force has been an all-male service, so the topic of female retention is understandably a rather foreign one. While parallels may be drawn and lessons learned from other integrated components of the Navy, there are still unique elements of the submarine community that will undoubtedly have impacts on female retention, for which there is no surrogate to look to for explanation. Few topics in this study elicited as many thoughts and opinions as the topic of female retention. Unfortunately, most of the commentary suggests that the submarine force faces a challenge in retaining female sailors. As one participant observed, “At this point they would have expected, I think, ten percent of the first group to sign contracts and none of us have signed contracts yet.” (Interviewee, personal communication)

Of the nine nuclear officer participants in this study, none had a firm intention of returning to submarines. Five have either already left the Navy or have plans to get out,

while four were undecided whether they would remain on active duty. Of the four who were undecided, two indicated that they were leaning toward separation and two plan to seek lateral transfers out of the submarine community, if they choose to stay in. Supply Officers assigned to submarines only typically have one tour of duty, but were asked whether they would have made the same decision to join the submarine community, or, given the option, if they would go back. Of the six Supply Officers, three indicated they would still make the same decision or go back and three said they would not.

Many participants offered an opinion regarding the issues that will pose the greatest problems for retention of submarine women. These opinions fall into two general categories. First, many participants indicated that problems with work-life balance and family planning would be the greatest issue affecting their retention. This issue was seen as especially important for families in which both members are in the military. While many female service members in other communities have children, most participants recognized unique traits of the submarine community that they felt contributed toward attrition, such as the very rigid, lock-step career paths for submariners and the high-tempo deployment rotation.

...the family planning part nobody's really talked about, because most of the women—myself not included—are married or in a very serious relationship, so between a two-year training pipeline, is what it's turned into, changing the DIVO tour to three full years instead of 32 months, and then still requiring us to be at SOAC by seven years, you have given me less than two years on my shore duty to have a family. Then if I wait until after my department head tour, I am already 34 years old....I think they are confused about why none of the first group have even signed contracts. ...I mean for me personally, not being married, the decision whether or not to sign a contract right now is almost a decision whether or not to—it's a decision to choose the Navy over having a family. But even if I am not sure right now on whether or not I want to have a family, I also 100% know that I would regret not having a family more than I would regret getting out of the Navy. (Interviewee, personal communication)

So as far as my career in the Navy, I am a little bit undecided right now. I think that my plan is to get out of the Navy and to go to school to get my Master's....I think that the Navy has done some really awesome things to allow people to kind of have a family and sort of take a break, but obviously that doesn't exist yet for the submarine force...So it's just really tough and it's really fast paced and I think that it would be really difficult

for—definitely it would be difficult for us to both stay in and start a family....the model doesn't look like it's going to work out. How the Navy could kind of affect that, I think that where the Navy has kind of advanced in other programs in the flight program or the surface warfare, it obviously hasn't gotten that far with submarines yet. I think the timeline to get to SOAC is very strict...you know, they say that shore duty is the time when you can start a family and whatnot, but when you are a woman it's a little bit more difficult to say, you know, that you will just have a kid and then you can go on deployment. (Interviewee, personal communication)

I can't create a scenario or manipulate our schedules where my husband and I don't have to do three or four years long distance to make that work. We have already done four years of that, so we are done. (Interviewee, personal communication)

Since I have been in the military, there has never been a time long enough for me to even consider having a kid...and then the first time you get a chance is after your first JO tour when you are supposed to get a master's degree and do some sort of random shore tour for the Navy and it's maybe a year and a half long....given the way that they do the timing and the career progression and all of that, how lock step it is, there is no room for them to do it. They have locked themselves in a little itty bitty cage and thrown away the key. (Interviewee, personal communication)

I really enjoyed the leadership opportunities that I had...but I am not sure the submarine force is ready for women that want to have a family life. Honestly, that's what my decision to stay in or not is going to come down to, is my ability to be a mom and be a successful mom as well as a successful submariner, especially being dual military....I would love to see the submarine force get to the point where a dual military couple can have kids and stay in and they are willing to make accommodations for that. I am just not sure I am ready to be the one to pave the way for that. I just think they need to realize that it's not just a few that this affects, but this is truly probably one of the biggest issues that women face at some point in their career. All of those women will face it at some point in their career of having to choose work over family. I think the thing that the military doesn't do a very good job at, is they don't understand that this is different for men and women. I think so many times they try to lump everyone as we are equal, we are equal. Well, we are, until you get to a point and when it comes to family life, the reality is I have to carry a child over nine months and that makes me different....especially with the submarine force talking about nuclear gates—it is not possible for both my husband and I to just leave a child at three months old and go on six months deployments. That's just not going to be a possibility. (Interviewee, personal communication)

[The COB] did tell me once that he was really impressed with the first one that got her fish and how he hoped that she would stay in because someone like her was what the force really needed in terms of a first woman kind of rising through the ranks. She's still around. At this point, it's really the ball is in the Navy's court....the Navy needs the women more than the women need the Navy. If they don't make some kind of accommodations to figure out when a woman can have a family or how that's going to work in the submarine force, especially with dual military, that she is going to leave....They don't know how to talk about it at all. I think that's definitely something that they should work on or else they are really going to limit themselves and they are going to lose a lot of really good people. I mean they already are....there's no cushion in the submarine force's progression—career progression....So I think that's the reason why a lot of submariner males are getting out too....I mean the whole reason we started allowing women on submarines, bar the whole because it's the right thing to do, is they needed more people because their attrition rates are high and they are having a hard time retaining people. So they just throw more bodies at the problem. Well, how about you look at the root cause, which usually the submarine force is really good at doing, figuring out the root cause and address that? The root cause is people haven't taken into account the people factor and how to balance professional and personal life without screwing up someone's career. (Interviewee, personal communication)

The other main category for comments on retention problems relates to the nature of the job itself and the impact of poor command climates. Many participants indicated that the highly demanding and rigorous characteristics of the submarine environment were simply unattractive and un-motivating. Other comments revolved around concern for how people were generally treated in the organization. It is clear that the commentary in this category is largely driven by individual command cultures and climates. This, too, is a useful observation, as it highlights the extent to which a poor command climate can affect retention efforts.

I think it's also the submarine community, because...I have a lot of friends in other communities and I realized that the unhappiness that a lot of me and my other officers had, it's not normal....yes, it was a lot more intense and a lot more stressful than a lot of the rest of the Navy. (Interviewee, personal communication)

I still thought I was going to be a career sailor when I first got to my boat. I spent the first year on my boat still hopeful, happy go lucky, just you know what—it's going to get better. It's going to get better. You can't stay

this awful....It was rough, but I always held out this hope that, you know, once we did our pushups and we made ourselves better people and we did the job, that the people would start acting like human beings to each other and that never happened. (Interviewee, personal communication)

I see the guys, they are there until sometimes 6, 7, 8 o'clock at night as department heads and I just don't see that—that's not going to appeal to a female with a family. It's the culture that we live in. You know, the female typically takes the role as the caregiver and it's just not—it's just not acceptable to a lot of people. (Interviewee, personal communication)

As far as the camaraderie, I got it on the enlisted side. I did not see it at all on the officer side, which sucked because those were my—the people who I was supposed to be interacting with the most and learning from and all I learned from them is that I didn't want to be like them. (Interviewee, personal communication)

So I had really high hopes when I got in. I wanted to make positive changes in the lives of my sailors. Instead of being empowered to do so as a junior officer on my boat, the point in time when I was supposed to have the most effect on their lives, I was told that I couldn't be what I perceived what was necessary to do that positive effect....They are some of the smartest, best people I have ever worked with in my life. It's a culture that I see pervading like all of the submarine fleet here....It's like this endless frustration that I can't change it, I can't make it better....They work harder, longer hours and are treated more awfully than I have seen anywhere else. It's indentured servitude....I can't do that. I can't go on to be a department head and then treat people like that and I can't go on to be an XO and treat people like that. I can't go on to be a CO and treat people like that....I can't imagine anybody staying. It's just—there's a lot less tolerance in most women than there are men. (Interviewee, personal communication)

...I don't regret being in the Navy. I wish there were things I could change. I wish I could smack some of the people that were on that boat and tell them that they are horrible people because you—no person should be treated like that. So I mean I went from wanting to spend 20 years in the Navy to wanting nothing to do with it for a good period of time. (Interviewee, personal communication)

While the subject of retention is a hot topic throughout the Navy, the submarine community faces its own unique challenges. Chief among these is meeting the needs of the force while attempting to accommodate the personal or family needs of its members. Second, but no less important, is the nature of the job itself and certain aspects of the

culture the organization creates. Perceived problems in the submarine culture are perhaps the easiest to address, since they can be effectively mitigated by good leadership and a positive command climate.

## **G. BENEFITS OF WOMEN'S INTEGRATION**

In conducting analyses of the interviews, several themes emerged that provide valuable insight into the benefits of the integration process. Much of the commentary on the following subjects comes in the form of participant opinions, generated by personal experiences, and should prove useful in evaluating current and future policy decisions.

### **1. Diversity**

A major benefit typically attributed to gender integration within the submarine community is the larger pool of talent available to the Navy. Other, less tangible, benefits are not as often perceived or discussed. Many participants expressed their insights regarding these perceived benefits, which are both interesting and potentially valuable for further research.

I think the major benefit is that the fleet gets access to very, very qualified and bright, talented females, which otherwise would never be eligible to serve. So that by itself is a major value proposition. (Interviewee, personal communication)

I think my personality, just being a woman, I probably had a different operating style, a different way of seeing things and doing things. So we talk about the benefits of diversity and bringing different viewpoints to the table and I think in some ways that could be really helpful to a command climate. (Interviewee, personal communication)

I really think women bring a new perspective to the submarine force. Submariners tend to be really type A, in the box people that do everything the same way unless a collision happens, they are not going to change the way they are doing it. But, I think we bring a new perspective to the table of there is a better way to do this and it is more effective and here is an effective way to solve this problem that you didn't even know existed. (Interviewee, personal communication)

## **2. Crew Professionalism**

Many participants spoke of the positive effect integration had on command climate and culture, which is an advantage that is somewhat less obvious. The sentiment was generally that having women on board tended to promote a healthier, more professional atmosphere, which benefited the crew as a whole.

...most of the guys actually said that it was for the better, the boat's a better place...So it's hard to think that you personally are the impetus for change, but that's what my COB—my COB thought that there was a change in the professionalism and maturity on the boat. So he felt like, you know—he felt like he saw a change in the guys and kind of just the higher performance level and a higher standard with having female JOs. (Interviewee, personal communication)

It wasn't as harsh of an environment in the wardroom after we showed up from what people say. I definitely got asked for a lot of relationship advice after I showed up onboard on how to deal with things. But, I think in some senses, they were happy to have kind of a different perspective in the wardroom. I do think women provided creative problem solving element...In some respects, I think that was a really good thing for the wardroom to have. I think it definitely made us a better ship. I talked a little bit already about that, becoming more civilized in the wardroom. I definitely think that we just provide a softer touch...there's no better way to say it than just that guys won't destroy each other quite as much when we are around. (Interviewee, personal communication)

I think that women just react differently to things. The first time I cried...I think he just realized that he couldn't just yell at me like he always did to the guys. So I think it provided definitely some leadership challenges to the chain of command... (Interviewee, personal communication)

I had somebody, one of the guys tell me this, things are much more civilized with you onboard. It's more professional, you know gender had no consideration for people, but people weren't disrespected. You know, when you go into a crew of all males, it's just part of the culture, they put people down a lot to make them more motivated to accomplish something...So I think people realized that putting someone down is not cool. Disrespecting someone just because they learn a different way or they have a certain opinion about something, that adds to the diversity in your available thought processes onboard...Things are a little nicer onboard. So I think that's a positive effect. (Interviewee, personal communication)

I do hope that the culture or anything became a little bit more positive because of the result of females coming onboard. Maybe the fact that a little bit more cordial, little bit less crudeness onboard...I had a couple of senior chiefs come up to me that by the end of that tour..."this is a better place to work and I really want to go back to an integrated boat." (Interviewee, personal communication)

### **3. Communication**

A final, common perception was that integration improved communication flow on the boat at all levels, from junior enlisted personnel to senior leadership. According to participants, better communication provided many benefits, from improving the effectiveness of watch teams to aiding in issue resolution to simply creating more comfortable personal relationships.

...towards the end of our time there, I felt like I knew way too much about my sailor's lives. Like they would come and tell me things about problems with their wives and medical issues and you know, their grandfather was whatever. You know, that may have just been my personality and women talk more than guys do, you know you joke, you laugh, you communicate and they feel comfortable coming and confiding in you, but I think they certainly did confide in us to a much greater extent, which in turn I think was actually really helpful to the chain of command....I think that was probably useful just that there was probably a higher level of communication flowing back and forth between some of the enlisted sailors and the junior officers than there would have been had females not been in the mix. (Interviewee, personal communication)

Another big achievement I would say for me was actually guys coming and talking to me about their personal issues, their professional issues, or marital issues. (Interviewee, personal communication)

I also think as leaders we tend to be more nurturing, which I think is very helpful for the young enlisted, especially, that we care a lot more about people just in general. (Interviewee, personal communication)

I think it opened the lines of communication between people a little more when we got here. I think it was a little stifled before, but you know I don't care how low or high you are, like if I have something I need to say to somebody, I just go up to somebody...That definitely made it to where people would communicate with each other more about different things...guys don't feel threatened by us. They don't feel like we are going to tell them that they are stupid for telling us that we are wrong, or telling us that there might be a better way to do this...So like, those

moments were good. The communication, I have seen it more with the male JOs now that I have been doing it for a while and I think some of it is because they saw me do it. (Interviewee, personal communication)

While many of these perceived benefits might be less tangible, they are no less important. Their implications should not be overlooked, as they may very well lead to a more effective force overall.

#### **4. Insight for Enlisted Integration**

Another topic of interest is participant opinions regarding the impending integration of female enlisted members within the submarine force. Since this topic is well beyond the scope of this study, little analysis was actually conducted. The following opinions are simply offered for consideration with the hope that some may prove useful in informing future decisions regarding the enlisted integration process.

I think they will have their own challenges. I am not naïve to think that there weren't portions of the boat that I didn't see and there are definitely things that a prettier picture was painted in front of me or even other officers face than the enlisted women are going to see. They are definitely going to—any sort of privacy that the guys may have held on to during the integration is going to be gone. Right? So I think they are going to have their own challenges. I think the female chiefs are going to have a lot of challenges too, as they not only try to be a chief, but also try to learn a whole new thing. (Interviewee, personal communication)

Whether or not I think the submarine force is ready, I think that as long as the process for getting submarines ready is at least the same as it was for us, the program will be fine. I think where it starts to get a little grey is when people start to relax and maybe the first wave has gone through, but now there is the second wave and if not everybody gets the same training that the first group gets...obviously it's going to be tougher because the berthing situation is different. As long as they keep that kind of training model, I think it will be fine. (Interviewee, personal communication)

Stop making it a big deal. Oh my God, get it out of the news, stop making it a big deal. Stop making announcements and proclamations and when it does happen, you talk to the boat that it's happening on...and send them on their way. (Interviewee, personal communication)

I think one of the big things that helped with the integration was that distinct officer and enlisted boundary. So you know, even if it was maybe what he said was inappropriate because he is a male saying it to a female,

but was it inappropriate from an enlisted to an officer? You could always fall back on that and have that as your metric. You are not going to have that with—or you may not have that with the female integration. (Interviewee, personal communication)

I think they need to do it and overall it will be a positive thing, but I think they also have to handle it carefully right at the start...The way I heard some of the guys kind of talk to me about like having an enlisted woman onboard, they didn't—like I don't think their perceptions are quite right on what it would be like. So I would say I think that needs to be handled well in the initial like integration of enlisted women. (Interviewee, personal communication)

The enlisted women integration, I don't think that it's going to go the way that they think it will go, because I don't feel that there has been long-term planning. I feel like it has been short-term planning. I do think enlisted women should be able to serve on submarines, however until you set up a process that looks at long-term effects by one, looking at the long-term effects of female officers, I don't think that you are going to get what you think you are going to get... I don't like seeing anyone set up for failure...I think not having a long-term viability discussion is setting people up for failure in the long run...it will put a lot of extra pressure on the women that are the firsts, just like it did the female officers that we were the firsts. I would have liked to have seen them integrate the chief's quarters first. I think that's a tough organization to really crumble, but I think if you had more people, more women in the goat locker, I think that would really set up your enlisted integration better. Just like I think having initially that senior Supply Officer was kind of important—the ones that did have senior Supply Officers, just for a command climate aspect. I don't know, more experience I think equals better perspective. (Interviewee, personal communication)

If the command approaches it the way the command approaches it where these are just sailors getting here, ready to go, to work on quals, to do the things that they are supposed to do, then it's going to be just fine. If the command approaches it and people are allowed to walk around saying, "Oh my God, the females are here," then it poisons the entire—it poisons the entire process. You have already poisoned the tree, if that makes sense. (Interviewee, personal communication)

I just felt like we, the females, didn't really talk about our experience when we were actually assigned to our boats often enough or with the operational tempo. I get it, like ship's schedule, I get it. But, I just felt like we didn't have enough time to even talk about or discuss our issues when we were actually going through the process. So that was...something that I wish we could have done better. We should have done better, I think. I

mean at least we are discussing it now, but it is almost like looking back...  
(Interviewee, personal communication)

## H. CONCLUDING NOTE

The rich data set of interviews offers many possible answers to the questions initially drafted for this research. In analyzing the interviews, only a fraction of themes were selected for further discussion due to the limited scope of the present study. Topics listed by research question are shown in Table 2. The next chapter discusses possible areas for further research.

Table 2. Overall Frequency of Discussion Points in Interviews

	Supply Officers	Nuclear-trained Officers	Total	Percentage (of total interviews)
<b>Major Impacts</b>				
Different Treatment	5	8	13	86.7%
Command Climate/Leadership	4	8	12	80.0%
Warm-Up Periods	5	9	14	93.3%
Overtraining Effects Training	4	5	9	60.0%
Supply Officers as DHs	5	3	8	53.3%
Supply Officer as JO Mentors	4	9	13	86.7%
<b>Submarine Culture Effects</b>				
Zero Defect Culture	1	3	4	26.7%
<b>Personal/Professional Impacts</b>				
Crew Professionalism	3	6	9	60.0%
General Retention Concerns	2	7	9	60.0%
Work/Life Balance Concerns	3	8	11	73.3%
<b>Benefits of Integration</b>				
Diversity/Communication	2	5	7	46.7%

## **V. CONCLUSION**

In 2009, Admiral Mike Mullen, Chair of the Joint Chiefs of Staff, and Admiral Gary Roughead, Chief of Naval Operations, began the campaign that would allow women officers to serve aboard Ohio-class submarines. Within six months, the policy change was vetted through Congress, and the first women submarine officers were selected in the spring of 2010. In 2011, the first women officers reported aboard four Ohio-class submarines; today, over 100 female officers are serving on SSBNs, SSGNs, and Virginia-class attack submarines.

This study was designed using qualitative research methods and undertaken to capture and learn from the lived experiences of the first women to integrate into the previously all-male submarine force. The study was designed and carried out by researchers who were themselves members of the submarine force, one a 15-year, prior enlisted submarine line officer, and the other, one of the initial female Supply Officers selected for integration. Fifteen female officers who were among the first group to initially integrate into the force, and whose identities will remain anonymous, voluntarily participated in the study. Semi-structured, guided interviews were conducted with the participants to gather data. Interviews were transcribed and retained as part of this study to provide a rich data set to support future research projects.

Interviews were analyzed by the researchers and used to frame conclusions and answer the main research questions: How would the first women to join the submarine force generally describe their integration experience? What factors supported or hindered their integration? What was the character of the organizational culture and how did it affect their experiences? Have their experiences affected them, professionally or personally and, if so, how? What do the participants see as the benefits of their integration?

### **A. RESEARCH QUESTIONS AND ANSWERS**

The overall research question, how do participants generally describe their experience, was first analyzed in terms of quality. Results of this analysis indicate that

two participants described their integration experience as excellent, six as good, three as neutral, and five as poor. Attention then turned toward understanding and describing the factors that resulted in, and could possibly explain, what shaped these experiences. The analysis served to address the remaining research questions and revealed five major hindering or supporting factors that affected integration: differential treatment, command climate and leadership, socialization periods, supply officers as dual purpose mentors, and supply officers as department heads. The role that the general submarine culture played in the integration process was also analyzed and described. This was followed by a brief discussion of personal and professional impacts and the benefits of integration.

*Differential Treatment.* It became clear that the participants in general were all very aware of, and sensitive to, treatment that they felt was different from that of their male counterparts. They expressed strong desires to be treated as equals. Situations and climates that tended to promote such equality were seen to greatly enhance the integration experience, while instances of perceived inequality were seen as detrimental. Even instances that may be considered relatively minor, or events that would normally be considered good, such as special recognition, were often pointed out in the interviews as differential treatment, indicating the sensitivity of this topic.

*Command Climate and Leadership.* It was widely agreed among participants that individual command climates, as established by command teams, had by far the greatest impact on the integration process. Three main elements were seen as supporting a good command climate conducive to integration efforts. Chief among these was the extent that command leadership promoted an atmosphere of professionalism and mutual respect at all levels. It was also beneficial to the experience when leadership somewhat downplayed, or prevented, excess attention on integration events as an anomaly, and promoted feelings of normalcy. Participants appreciated command environments where they were viewed as just another officer, there to do their job. Finally, it was considered important to promoting a positive command climate when leadership took an active role in the integration process, both in terms of prompt attention to issues and as an interested party in the process itself. Conversely, participants felt that the experience was damaged

when leadership was perceived as being disinterested in the process or, in some cases, the women themselves.

*Socialization Periods.* Nearly every participant, in one way or another, discussed the initial socialization or warm-up period between the crew and the newly reported women. It was generally described as a time when everyone was very standoffish and tended to avoid the female officers, adding to feelings of inequality and creating communication problems. Most understood that this period was inevitable, but in some instances its duration and severity were perceived to have been limited by good command climate and other efforts by leadership. These instances were seen as positive to the integration efforts. Additionally, many participants believed that, although useful, the initial training required for crews to become certified for integration was rather excessive and too centered around SAPR-type topics rather than other topics that would have been more useful, such as procedures for entering female staterooms and head facility usage.

*Supply Officers as Dual-Purpose Mentors.* It was nearly unanimous across all interviews that the assignment of a senior supply officer with prior Navy experience was valuable to the initial integration efforts. Supply officers were able to serve as mentors to the junior nuclear female officers as they could provide general advice regarding interactions and conduct in the military environment and serve as a sounding board. It was also noted that the supply officers filled an important mentorship role for the command team regarding integration issues and communication with the new female junior officers, which was seen as supportive to the process. The utility of the supply officer as a mentor was limited, however, because they lacked experience in not only the submarine environment but also in the nuclear power job aspects that dominated much of the lives of the unrestricted line female officers. In fact, supply officers themselves were struggling to learn this new culture and become qualified watch standers, further negating their roles as mentors. Many nuclear-trained participants found it most helpful when they were able to find mentorship from male officers who had experienced what they were going through. Furthermore, the supply officers and nuclear officers both recognized the fact that, once fully qualified, a female junior officer could easily step into the role of mentor for newly reporting females, and be more effective.

*Supply Officers as Department Heads.* One final major theme was specific to the female Supply Officers. Many expressed aggravation with the integration process, driven by their position on board as a department head and their prior Navy experience. The Supply Officer is a department head position by title, but typically the officer assigned to this role is a first-tour Supply Officer with no prior experience. For the women in submarines program, however, female Supply Officers were selected who had already completed previous tours and had already qualified in a warfare designation outside the submarine force. Because Supply Officers are typically first-tour junior officers on submarines, combined with the fact that they have not yet earned their submarine qualification, they are sometimes perceived as more of a division officer in the wardroom than a department head. This perception often led to feelings of lack of respect for their seniority and prior accomplishments. At the same time, instances when they were given support by command leadership to emphasize their role as a department head were viewed as most helpful to the integration process.

*Submarine Culture.* The submarine community has a very strong and pervasive culture that values self-sufficiency, personal motivation, constant improvement, and proficiency, and it is extremely unforgiving of anything perceived as incompetence. New personnel are not welcomed unconditionally, but must instead earn acceptance by demonstrating their competence. This culture is not in itself harmful and indeed serves as a driving force in the success of the community. It does, however, have the potential to lead to a command climate that becomes unprofessional, where mutual respect is no longer highly valued and new personnel are given very little, if any, outside support. If left unchecked, it can lead to a toxic environment of disrespect, judgment, and inequality. Some participants had negative experiences due to submarine culture, while others had more positive experiences because good command leadership promoted climates of respect and professionalism, serving to moderate this culture. The latter situation was, perhaps obviously, considered helpful to integration efforts.

*Personal and Professional Impacts.* Except in cases where participants viewed their experiences as extremely poor, perceived impacts revolved around three main topics: growth from their experience, mentorship discussions, and thoughts on future

retention. First, the sentiments regarding effects on personal and professional lives centered on positive learning experiences in leadership and teamwork, as well as feelings of increased confidence, assertiveness and maturity. Most participants believed that they were generally better off from their experiences and that they had realized their previously unrecognized potential. Second, most participants agreed that the policy of having a more senior female officer with prior Navy experience provide a mentor role for junior nuclear-trained officers was advantageous and a good model with which to start. Many also agreed, however, that once nuclear-trained female officers become fully qualified in submarines, they could easily step into this role, perhaps more effectively, and the requirement for a female Supply Officer should be lifted. Finally, as a professional impact, much discussion included future retention of female officers. In this study, no participants have yet committed to returning to the submarine fleet, and many offered their opinions on the matter. The largest barrier to retention among participants is problems created by the high tempo, lock-step career progression of submarine officers, and family-planning concerns. While there are significant challenges for this process, and more will inevitably occur in the future, the participants provided many success stories and much can be learned from them.

*Benefits of Integration.* The participants discussed several perceived advantages of crew integration, some of which have perhaps not yet been recognized by the force. Some major benefits discussed included the obvious increase in both population and talent from which the submarine force can recruit members, and the value added by having greater diversity of thought and points of view on submarine crews. Some less obvious benefits that were perceived by some participants included the creation of a more positive, healthy, and professional atmosphere on board integrated crews, and better communication flow at all levels, which would in turn lead to greater efficiency and overall effectiveness. These potential benefits deserve further analysis as they could have powerful implications for the submarine force if proven accurate.

## **B. SUGGESTIONS FOR FURTHER RESEARCH**

The following suggestions for further future research were inspired by this study.

One participant suggested that the potential may exist for an increase in problems related to gender integration. Her reasoning included the relaxing of standards over time and her observation that new personnel reporting aboard after the initial integration had received no specialized training whatsoever to prepare them to enter a gender-integrated community. Also, within approximately two years, everyone who had received any training specific to integration had departed due to their normal rotation schedule. The present study could be extended to include more recent groups of women who have reported to crews that have been integrated for some time, comparing experiences and opinions for trend analysis. The continued study could use the same methodology and structure developed here, with increased focus on analysis.

The present study could also be used as a model to assess the experiences of the first group of enlisted women to integrate on submarines, as well as the first group of female officers assigned to fast-attack submarine crews. This would be useful as it would again capture the lived experiences for further research, but also allow assessment of similarities and differences across different submarine cultures including SSBNs, SSGNs, attack submarines, and the enlisted community. Further, a study could be conducted to determine why differences may exist and what elements could be leveraged moving forward. Significant differences and similarities would likely be found in these studies, and the findings could have important implications in setting a course for future integration efforts.

During the initial phases of topic development, the researchers conducted some analysis regarding the pre-integration procedures from other countries with integrated submarine crews. Although there are differences in the mission sets and deployment times between countries, existing evidence suggests that setting the tone of a command climate prior to integration can enhance buy-in from the community as well as from the families of service members. Australia, for example, apparently focused more effort on the socialization aspect and command climate elements that promoted respect and fair treatment. This is especially interesting in that some countries have worked toward fully integrated berthing and sanitary facilities on submarines that are similar to United States fast-attack space limitations.

Finally, an area of interest for future research revolves around the advantages perceived by some participants. Specifically, that integrated crews may potentially be more effective overall due to a more professional command climate and increased communication flow. The researchers suggest conducting a study to evaluate crew effectiveness between integrated and non-integrated crews. Some potential metrics for measurements could include inspection grades, nuclear and non-nuclear crew test scores, numbers of incidents or critiques, and personnel discipline issues. Other metrics are also worth considering, but the previous discussion provides a basis for departure.

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# APPENDIX A. ASSIGNMENT OF WOMEN IN THE NAVY



DEPARTMENT OF THE NAVY  
OFFICE OF THE CHIEF OF NAVAL OPERATIONS  
2000 NAVY PENTAGON  
WASHINGTON, D.C. 20350-2000

OPNAVINST 1300.17B  
N13  
27 MAY 2011

## OPNAV INSTRUCTION 1300.17B

From: Chief of Naval Operations

Subj: ASSIGNMENT OF WOMEN IN THE NAVY

Ref: (a) Public Law 103-160  
(b) SECDEF ltr of 4 Feb 94 (NOTAL)  
(c) SECDEF ltr of 22 Jul 99 (NOTAL)  
(d) SECDEF ltr of 2 May 2005 (NOTAL)  
(e) SECDEF ltr of 19 Feb 2010 (NOTAL)  
(f) SECDEF memo of 13 Jan 94 (NOTAL)  
(g) OPNAVINST 6000.1C  
(h) MCO P1300.8R, Chapter 5

Encl: (1) List of Assignments Closed to Women

1. Purpose. To provide specific guidance under which women, both officer and enlisted, may be assigned to duty in ships, squadrons, and other units of the Navy; and to establish initial and continued embarkation procedures, and minimal manning requirements for women. This instruction is a complete revision and should be reviewed in its entirety.

2. Cancellation. OPNAVINST 1300.17A.

3. Scope. This policy applies to women members of all U.S. Military Services and the United States Coast Guard assigned temporary duty (TEMDU) to United States Navy ships, squadrons, or units.

4. Background

a. Reference (a), section 541, repealed section 6015 of title 10, United States Code, the "combat exclusion law." This authorizes the Secretary of Defense (SECDEF) to change military personnel policy to assign women to any combat unit, classes of combat vessels, and combat platforms. Reference (a), section

542, directed SECDEF to provide 30-day notification to Congress prior to implementing any changes, which open units, classes of vessels, or types of platforms that were previously closed to women, and 90-day notification prior to any changes to the ground combat exclusion policy. Prior to the repeal, women could be assigned to all combat logistic force, support, auxiliary, and special category ships, as well as non-combatant units.

b. Reference (b) notified Congress that the following were open to the assignment of women: all afloat staffs, all combat air squadrons, aircraft carriers, cruisers, destroyers, frigates, amphibious warfare ships, mine countermeasure (MCM) commands and MCM support ships, and all units of the Naval Construction Force.

c. Reference (c) notified Congress that MCM and mine coastal hunter class ships were open to the assignment of women.

d. Reference (d) notified Congress that coastal patrol craft ships were open to the assignment of women officers.

e. Reference (e) notified Congress of the Navy's policy change permitting women to serve aboard submarines.

f. Reference (f) issued the direct ground combat exclusion policy, and directed the Secretary of the Navy (SECNAV) to designate which positions, units, and platforms meet direct ground combat criteria. This policy also authorized SECNAV to recommend restriction of the assignment of women where: the costs of appropriate berthing and privacy arrangements are prohibitive; units and positions are doctrinally required to physically collocate and remain with direct ground combat units; units engaged in long-range reconnaissance operations and Special Operations Forces missions; and or job-related physical requirements would necessarily exclude the vast majority of women Service members. Reference (e) also states that Military Services will use this guidance to expand opportunities for women. No units or positions previously open to women will be closed under these instructions.

5. Policy

a. Assignment

(1) Female officers and enlisted personnel in the Navy will be assigned to sea and shore duty commensurate with their capabilities and qualifications to the maximum extent practicable.

(2) Women will be assigned duties they can fulfill in both peacetime and wartime. Women will continue to serve in their assigned billets in the event of mobilization or national emergency, except during and after pregnancy as directed in reference (g).

(3) Women will be permanently assigned to all ships, designated submarines, all afloat staffs, all units of the Naval Construction Force, all Riverine headquarter staffs, and all aviation squadrons regardless of mission, and will be fully integrated into the units to which they are assigned, without a separate chain of command. An exception to this policy applies to currently designed boats of Riverine squadrons. Women will not be assigned to Riverine boat crews due to the requirement of these units to conduct direct ground combat missions.

(4) Female officers may be assigned to any surface combatant without requiring the ship to receive a habitability modification.

(5) Only female officers may be assigned to ballistic missile and guided missile submarines.

(6) Permanent assignment of women to particular units may be precluded because of inadequate berthing, i.e., ship modifications to habitability spaces not scheduled because of the age of the vessel.

(7) All shore duty activities are available for the permanent assignment of women.

(8) The assignment and deployment policy for Navy women in support of the Fleet Marine Force is per reference (h).

(9) See enclosure (1) for a complete list of designators, ratings, and Navy enlisted classifications that are currently restricted to women.

b. General Information for Embarkation of Women

(1) Type commanders (TYCOM) are responsible for the successful implementation and management of the embarkation of women. Initial embarkation guidance, guidelines for issuing unit instructions, and certification checklists for the embarkation of women will be published separately by TYCOMs.

(2) A gender integration initial embarkation conference will be held approximately 9 months prior to the scheduled embarkation to coordinate the event between the ship, submarine, squadron, TYCOM, manning control authority (MCA), and Navy Personnel Command (NAVPERSCOM), Career Management Department (PERS-4). The initial embarkation cadre will be established at the embarkation planning meeting hosted by NAVPERSCOM (PERS-4).

(3) Pre-commissioning units do not require a gender integration initial embarkation conference and will be detailed per the crew scheduling and phasing plan using policies for gender integrated ships.

(4) A ship, submarine, or squadron is no longer considered to be in initial embarkation phase when the final personnel complement established in the embarkation planning meeting has reported.

(5) Upon completion of the initial embarkation phase, all women will be detailed to platforms per standard detailing procedures except where women are excluded due to assignment restrictions.

(6) An experienced or warfare qualified female officer will be aboard prior to the arrival of enlisted E6 and below women or newly commissioned officers.

(7) At least one female chief petty officer (CPO) will be aboard prior to the arrival of E6 and below women. If a female CPO is not available, a female E6 may be substituted with TYCOM approval to prevent delay of the initial embarkation process. Further coordination with NAVPERSCOM (PERS-4) will

continue to ensure placement of a woman CPO as soon as possible. Assignment will be per the activity's normal requisitions; however, additional requirements may be requested by TYCOMs if female CPOs available for orders do not match the unit's outstanding requisitions.

(8) A minimum of one female officer and one female CPO will be assigned to all gender integrated ships and squadrons. TYCOM has authority to gap CPO presence; however, efforts must be continued by NAVPERSCOM (PERS-4) to assign a female CPO as soon as possible. When no female CPO is available, TYCOM and NAVPERSCOM (PERS-4) should ensure female E6 presence. If the number of female CPOs on a ship is expected to fall to zero due to prospective loss, the ship will notify TYCOM and NAVPERSCOM (PERS-4) via naval message.

(9) On platforms where there is no enlisted presence, a minimum of two female officers should be assigned at all times. If the number of female officers is expected to fall below two, the command will notify TYCOM and NAVPERSCOM (PERS-4) via naval message and every effort must be made to assign a second female officer as soon as possible.

(10) Assignment of female E3 and below will not exceed 40 percent of the bunks available for E6 and below women on any one unit without TYCOM approval.

(11) All women will be detailed to ships, submarines, or squadrons per standard detailing procedures.

(12) All billets will be gender-neutral and a man or a woman may replace a transferring woman and vice-versa.

(13) If an approved alteration allows the number of female E1 to E6 to be increased, a corresponding increase in the number of CPOs is not required.

(14) Rate and rating mix of assigned women will be balanced between the number of available enlisted women and the requisition priorities of the various fleet MCAs.

(15) Gender mix of any given work center will not be a consideration in the assignment of women.

c. Berthing

(1) Female bunk utilization will be maximized commensurate with the unit's requisitions and optimum fleet distribution of female inventory.

(2) If an approved alteration allows the number of female bunks to be increased, TYCOM, MCA, Office of the Chief of Naval Operations, Diversity Directorate Branch (OPNAV (N134W)), and NAVPERSCOM (PERS-4) shall coordinate additional assignment of women.

d. TEMDU and Temporary Additional Duty (TEMADD)

(1) Women may be assigned TEMDU or TEMADD to all squadrons, ships, submarines and units authorized for permanent assignment of women, without restriction.

(2) Women may embark in any unit for official purposes not requiring TEMDU or TEMADD orders, such as for the performance of inspections, support functions, or visits.

(3) Commanding officers (COs) will provide temporary berthing for women temporarily assigned. The berthing will be commensurate with rank or rate; exceptions can be made by the CO. Sleeping quarters must be separate from men. Head facilities may be provided on a time-sharing basis. Locks will be provided on doors of heads to ensure adequate privacy.

6. Records Management. Records created as a result of this instruction, regardless of media and format, shall be managed per SECNAV Manual 5210.1 of November 2007.



M. E. FERGUSON III  
Vice Admiral, U.S. Navy  
Deputy Chief of Naval Operations  
(Manpower, Personnel, Training  
and Education)

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OPNAVINST 1300.17B  
27 MAY 2011

**LIST OF ASSIGNMENTS CLOSED TO WOMEN**

<b>DESIGNATORS CLOSED TO FEMALE OFFICERS</b>		
<b>DESIGNATION (DESIG)</b>	<b>Position, Weapon System, and or Field of Skill</b>	<b>Rational</b>
113X	Special Warfare Unrestricted Line Officer (Underwater Demolition Team (UDT)/Sea, Air, Land (SEAL))	1
615X	Special Warfare Limited Duty Officer (LDO)	1
715X	Special Warfare Technician Chief Warrant Officer (CWO)	1
717X	Special Warfare Combatant Craft Technician CWO	1

<b>BILLET ASSIGNMENTS CLOSED TO FEMALE OFFICERS</b>		
<b>DESIG</b>	<b>Position, Weapon System, and or Field of Skill</b>	<b>Rational</b>
111X	Naval Gunfire Liaison Officer	2
112X	Submarine Officer billets in Nuclear-Powered Fast-Attack Submarines (SSN)	3
310X	Supply Corps Officer billet in SSNs	3
6260	LDO Ordnance in Submarines	4
6280	LDO Electronics in Submarines	4
6290	LDO Communications in Submarines	4
6210	LDO billet requiring specialty in Deck in Submarines	4
6260	LDO billet requiring specialty in Ordnance in Submarines	4
6280	LDO billet requiring specialty in Electronics in Submarines	4
6290	LDO billet requiring specialty in Communications in Submarines	4
7210	CWO billet requiring specialty in Deck in Submarines	4
7230	CWO billet requiring specialty in Engineering in Submarines	4
7240	CWO billet requiring specialty in Repair Technician in Submarines	4
7260	CWO billet requiring specialty in Ordnance Technician in Submarines	4
7280	CWO billet requiring specialty in Electronics Technician in Submarines	4
7400	CWO billet requiring specialty in Nuclear Power in Submarines	4

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<b>NAVY ENLISTED CLASSIFICATIONS (NEC) CLOSED TO FEMALE ENLISTED</b>		
<b>NEC</b>	<b>Position, Weapon System, and or Field of Skill</b>	<b>Rational</b>
0402	AN/SQQ-89(V) 2/9 Active Sonar Level II Technical Operator	3
0406	AN/SQQ-89(V) 2/(V) 9 Sonar Subsystem Level I Operator	3
0416	Acoustic Intelligence Specialist	3
0419	AN/BSY-1 (XN01) (V) Advanced Organizational Maintenance Technician	3
0425	AN/BQQ-6 Trident Level III Master Operations and Master Technician	3
0461	AN/BSY-2(V) Advanced Maintainer	3
0495	Master Sonar Technician	3
0501	AN/BSY-1 and An/BQQ-5E Combined Retained Equipment Maintenance Technician	3
0518	Sonar Technician AN/BQQ-10(V) Operator/Maintainer	3
0520	Sonar Combat Control Architecture Equipment Technician	3
1174	Combat Control System MK-1 Vertical Launch Subsystem Organization/Intermediate Level Maintenance Technician	3
1175	Combat Control System MK-1 Modification (MOD)1 Organizational/ Intermediate Level Maintenance Technician	3
1179	AN/BSY-2(V) Advanced Maintainer	3
1194	AN/BSY-1 (XN-1(V) Organizational/Intermediate Level Maintenance Technician	3
1312	Combat Control System (CCS) MK-2 MOD 0 Maintenance Technician	3
1313	CCS MK-2 MOD 1 Maintenance Technician	3
1314	CCS MK-2 BLK 1 (all MODs) Maintenance Technician	3
1315	CCS MK-2 MOD 3 Maintenance Technician	3
1316	AN/BYG-1 (V) T104 Combat Control Maintenance Technical	3
1317	Nuclear-Powered Cruise Missile Submarine (SSGN) Tactical Tomahawk Weapon Control System (TTWCS) Operator	3
1319	SSGN TTWCS Maintenance Technician	3

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NEC	Position, Weapon System, and or Field of Skill	Rational
1320	Trident MK-118 Combat Control System Maintenance Technician	3
1327	Fire Control Technician Basic Maintainer	3
1328	Master Fire Control Technician	3
1329	Combat Control Subsystem Equipment Operator	3
1330	Combat Control Sonar and Architecture	3
14AB	Common Submarine Radio Room Equipment Operator	3
14BH	Class Electronic Support Equipment Maintenance Technician	3
14CM	SSN Radio Frequency (RF) Equipment Technician	3
14EM	SSN Emission Sensing Monitor (ESM) Equipment Maintenance Technician	3
14GM	SSGN Navigation Maintenance Electronics Technician	3
14HH	SSN 21 Class ESM Technician	3
14NM	Navigation Equipment Maintenance Technician	3
14NO	Navigation Equipment Operator	3
14NP	SSN 774 Class Navigation and Ship's Electronic Equipment Technician	3
14NV	SSN/Nuclear-Powered Ballistic Missile Submarine (SSBN) Assistant Navigator	3
14TK	SSN 21 Navigation Technician	3
14TM	Trident I/II RF Equipment Maintenance Technician	3
14TO	Trident I/II RF Equipment Operator	3
14XM	Electronics Technician Trident II Strategic Weapons System (SWS) D-5 Backfit SWS Navigation Maintenance Technician	3
14XO	Electronics Technician Trident II SWS D-5 Backfit SWS Navigation Maintenance Operator	3
14ZA	AN/BRD-7 Submarine Radio Direction Finding Set Maintenance Technician	3
14ZQ	SSN/SSGN AN/BLQ-10A(V) Submarine Electronic Warfare Support Equipment Operator	3

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NEC	Position, Weapon System, and or Field of Skill	Rational
3302	Nuclear Qualified Engineering Department Master Chief	3
3303	Nuclear Qualified Engineering Department Master Chief	3
3312	Missile Technician Trident II SWS D-5 Backfit (Missile Technician) Nuclear Weapons Specialists (NWS)	3
3320	NWS	3
3350	SSGN Attack Weapons System Missile Technician	3
3351	Submarine Nuclear Propulsion Plant Emergency Welder	3
3353	Submarine Nuclear Propulsion Plant Operator - Reactor Control	3
3354	Submarine Nuclear Propulsion Plant Operator - Electrical	3
3355	Submarine Nuclear Propulsion Plant Operator - Mechanical	3
3356	Submarine Nuclear Propulsion Plant Operator - Engineering Laboratory Technician	3
3359	Submarine Nuclear Propulsion Plant Operator - Special Category	3
3363	Submarine Nuclear Propulsion Plant Supervisor - Reactor Control	3
3364	Submarine Nuclear Propulsion Plant Supervisor - Electrical	3
3365	Submarine Nuclear Propulsion Plant Supervisor - Mechanical	3
3366	Submarine Nuclear Propulsion Plant Supervisor - Engineering Laboratory Technician	3
4231	SSN/SSBN Auxiliary Equipment Operator	3
4233	SSN/SSBN Weapons Equipment Technician	3
4234	SSN 774 Class Advanced Auxiliary Equipment Technician	3
4235	Submarine Vertical Launch System Tube Maintenance Technician	3
4246	SSN/SSBN Diesel Engine (Fairbanks-Morse) Maintenance Technician	3
4247	SSN 719-725 and 750 Submarine Vertical Launch System Tube Maintenance Technician	3

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NEC	Position, Weapon System, and or Field of Skill	Rational
4252	Electrolytic Oxygen Generator (Model 6L16) Operator/Mechanical Maintainer	3
4253	Low Pressure Electrolyzer (LPE) Operator	3
4254	Oxygen Plant Operator/Maintenance Technician	3
4641	SSN 774 Integrated Low Pressure Electrolyzer Equipment Technician	3
4653	LPE Maintainer	3
4666	Minesweeping Electrician	3
4674	Oxygen Generating Plant Electrical/Electronic Maintenance Technician	3
4752	Electrolytic Oxygen Generator (Model 6L16) Electrical Technician	3
5301	UDT/SEAL Candidate	1
5320	Special Operations Basic Combatant Swimmer	1
5323	SEAL Delivery Vehicle (SDV) Pilot/Navigator/Dry Deck Shelter Operator	1
5326	Special Warfare Operator	1
5350/5352	Special Warfare Combatant Craft Crewman	1
5392	Naval Special Warfare Hospital Corpsman	1
8402	Submarine Force Independent Duty Corpsman	3
8403	Fleet Marine Force Reconnaissance Independent Duty Corpsman	2
90IE	Riverine Patrol Boat Operation/Crewman	1
90IF	Riverine Small Craft Maritime Interdiction Operations	1
9134	Subsurface Augmentee Operator	3
9135	Subsurface Augmentee Electronic Signals Intelligence Operator	3
9229	Submarine Carry-on Equipment Technician	3
9534	SDV Team Technician	1, 2
9550	Unmanned Undersea Vehicle Operator	3
9562	Deep Submergence Vehicle Operator	3

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NEC	Position, Weapon System, and or Field of Skill	Rational
9563	Deep Submergence Vehicle Crewmember	3
9568	Joint Terminal Attack Controller	1
9569	Joint Terminal Attack Instructor	1
9579	Chief of the Boat	3

**BILLET ASSIGNMENTS CLOSED TO FEMALE ENLISTED**

These ratings are open to women but certain billets within those fields of skill remain closed.

Position, Weapon System, and or Field of Skill	Rational
Enlisted billets on Patrol Craft	3
Enlisted billets on missile-guided frigate (FFG)	3
Culinary Specialist, Logistics Specialists, Yeoman on all types of submarines	3

Rational for applicability:

- 1 - Direct ground combat
- 2 - Collocation with direct ground combat units
- 3 - Costs of appropriate berthing and privacy arrangements are prohibitive
- 4 - Unable to be assigned because of prerequisite Enlisted experience required in a submarine.

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**Enlisted Women are Restricted from the Following Ratings  
(Submarine or SEAL associated)**

Ratings:	
ETN	Electronics Technician Navigator
ETR	Electronic Technician Radio
FT	Fire Control Technician
ITS	Information Technician Specialists Submarine
MME	Machinists Mate Auxiliary
MMW	Machinists Mate Weapons
MT	Missile Technician
SB	Special Warfare Boat Operator
SO	Special Warfare Operator
STS	Sonar Technician, Submarine

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## APPENDIX B. INITIAL EMBARKATION NOTICE



### DEPARTMENT OF THE NAVY

COMMANDER SUBMARINE GROUP TEN  
1050 USS GEORGIA AVENUE  
KINGS BAY, GEORGIA 31547-2809

COMSUBGRUNINE/COMSUBGRUTENNOTE 1300  
7 Feb 11

#### COMSUBGRUNINE/COMSUBGRUTEN NOTICE 1300

Subj: INITIAL EMBARKATION OF WOMEN IN SUBMARINES

Ref: (a) SECNAVINST 1300.12C  
(b) OPNAVINST 1300.17A  
(c) OPNAVINST 5370.2C  
(d) OPNAVINST 5354.1F  
(e) OPNAVINST 6000.1C  
(f) OPNAVINST 5720.2M  
(g) OPNAVINST 6400.1C

Encl: (1) Initial Embarkation Guidance  
(2) Sample Plan of Action and Milestones  
(3) Checklist for Certification  
(4) List of Applicable Instructions

1. Purpose. To establish policy and provide guidance regarding the initial embarkation of Women in Submarines. Reference (a) establishes Secretary of the Navy Guidelines on assignment of women within the Department of the Navy. Reference (b) establishes the Navy's policy for assignment of women to ships, aircraft and naval units. This notice supplements references (a) and (b) and provides clarifying guidance for the initial embarkation of female officers aboard submarines.

2. Background. In 1993, the Navy expanded the opportunities for women to serve onboard ships by opening combat support ships, some command ships, and amphibious command ships to women. Shortly thereafter, the "Combat Exclusion Law" was rescinded and the Navy began assigning women to most classes of surface ships and all air squadrons to include combat squadrons.

#### 3. Discussion

a. Per references (a) and (b), it is the Department of the Navy Policy that women will be assigned to sea and shore duty commensurate with their capabilities and qualifications to the maximum extent practicable.


b. In early 2010, the Secretary of Defense notified Congress that service in the Submarine Force would be open to


female officers aboard OHIO Class submarines (both SSBNs and SSGNs). The first female officers are scheduled to arrive in the fall of 2011 after completion of Nuclear Power and Submarine Basic Training.

c. This notice publishes initial embarkation guidance, guidelines for promulgating unit instructions, and certification checklists as directed by reference (b).

d. The key to successful integration of women, as with any new crew member, is rapid and thorough assimilation into the daily shipboard routine. Additionally, although this notice delineates specific guidance applicable to the integration of women on submarines, history indicates the single over-riding action required to ensure successful integration will be the clear perception that men and women are always treated in an equitable manner. Commands should keep this in mind as they implement the integration process.

4. Action. COMSUBGRU NINE/TEN commands shall comply with this notice and the guidance contained in references (a) through (g) in preparing for and implementing the permanent assignment of women to submarines.

  
D. W. KIRK  
Chief of Staff

  
D. PRINCE  
Chief of Staff

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USS OHIO (SSGN 726)  
USS GEORGIA (SSGN 729)  
USS MAINE (SSBN 741)  
USS WYOMING (SSBN 742)

Initial Female Submarine Officer Integration Guidance

1. OVERSIGHT

a. Responsibilities

(1) Women in Submarines Task Force (WIS-TF). Commander, Submarine Forces (CSF) established a WIS Task Force to provide Flag level oversight for planning and execution of the integration of women in submarines. The WIS-TF will serve as the principal body to coordinate and recommend policies and changes required for successful implementation. The WIS-TF will be headed by either Commander, Submarine Group Nine (CSG-9) or Commander, Submarine Group Ten (CSG-10) as directed by CSF and shall report the status of efforts monthly to CSF. The TF developed a Submarine Force Plan of Action and Milestones (POA&M) that was approved by CSF, and the Chief of Staff for the Group Commander leading the Task Force shall actively track completion of these milestones.

(2) Type Commanders (TYCOM). Type Commanders (TYCOMs) have overall responsibility for the successful implementation and management of the embarkation of women within their respective fleets. This instruction establishes policy and procedures on behalf of the Submarine TYCOMs to govern the process as required by reference (b). The TYCOM representatives shall be the principal liaison between the Chief of Naval Operations (CNO), the respective Fleet Commanders, and the Chief of Naval Personnel (CHNAVPERS) representatives.

(3) Group Commanders. Commanders, Submarine Group 9 and 10 are directly responsible for the successful implementation and management of the Embarkation of Women in Submarines Plan for their respective submarine crews. The Group Commanders will provide oversight and assistance to their commands. Each Commander shall assign one officer from the staff as a primary point of contact for integration planning and oversight. The Group Commanders will also provide a coordinated draft Command Instruction to address issues such as suitable attire, entry into opposite gender berthing compartments, etc.

(4) Squadron Commanders. Squadron Commanders will designate a lead representative for the integration of Women in Submarines. The Group/Squadron Equal Opportunity Program Officer will also be assigned to assist. The representative

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will monitor the status of ships within their chain of command monthly to make sure key milestones are achieved. Group Commanders shall be notified immediately of any significant matters requiring action.

(5) Individual Commands. The Commanding Officer of each crew to be integrated has the ultimate responsibility for ensuring successful integration of their crew. The Commanding Officer should designate one officer to act as his lead representative for the integration and designate a Chief Petty Officer to act as his alternate/assistant.

b. Plan of Action and Milestones (POA&M). Each command to be integrated shall develop a POA&M to coordinate the transition and provide a copy to their respective Squadron Commanders. Enclosure (2) contains a sample POA&M. Individual commands should modify this example as necessary to best suit their needs, however the POA&M shall include a proposed date for the Group Commander's certification.

c. Ship's Instructions and Policy Guidance. Each command shall update command policy instructions to ensure they are relevant and complete for mixed gender crews. The topics listed in paragraph 3.a must be clearly addressed. The command instructions will be reviewed during the certification visit. Existing instructions and directives may be modified in lieu of creating a new instruction, provided topics listed in paragraph 3.a are clearly addressed.

d. Certification. The respective Group Commander will certify crews under their chain of command using enclosure (3) prior to the initial permanent assignment of women.

e. Lessons Learned. Commanding Officers will provide lessons learned to TYCOM via their Group and Squadron at the conclusion of the first patrol/operational cycle.

## 2. SHIP PREPARATION

a. Facilities. Trident submarines require only minor modification to accommodate the permanent assignment of female officers. That said, required facility modifications should be completed before the actual arrival of women.

(1) Staterooms. All permanently assigned female officers shall be berthed in staterooms. Trident submarines

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have significant flexibility to accommodate various numbers of female officers due to their mix of two and three man staterooms and ships should use whatever combination of staterooms optimizes officer berthing. No modifications are required to wardroom staterooms as a result of assigning women officers.

(2) Head Facilities

(a) The Watchstander head and the Wardroom head should be designated for use by either gender with appropriate caution signs posted; e.g. OCCUPIED/UNOCCUPIED on the Watchstander Head and MEN/WOMEN on the Wardroom Head. An internal toggle or hook type latch should be installed on the Watchstander Head, but not on the Wardroom Head.

(b) Submit a work request to appropriate maintenance activities to replace the wardroom head door "bulls-eye" with an opaque lens.

(c) Submit a work request to install trash receptacles in the Watchstander's Head and the Wardroom Head for appropriate disposal of personal hygiene items.

(3) Enlisted Berthing Compartments. Curtains for male enlisted berthing compartments shall be maintained in good repair such that they completely block the view into the compartments. The installation of doors is not required for the assignment of female officers.

b. Medical Department

(1) Authorized Medical Allowance List (AMAL). Submarines scheduled for integration will receive a revised AMAL that includes items required to accommodate women. The approved allowance of all AMAL list items specifically for women shall be ordered and onboard before the first women arrive to the ship.

(2) Independent Duty Corpsman (IDC) Training. Medical situations unique to women include but are not limited to pregnancy, abdominal pain evaluation, gynecological conditions, and birth control methods. The Naval Undersea Medical Institute trains all IDCs to handle initial treatment and triage of such conditions and IDCs must have clinical proficiency encompassing the entire clinical training program. The Undersea Medical Officer Physician Supervisor appointed to each IDC is responsible for ensuring that they have the required familiarity

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and competencies defining the IDC scope of care as outlined in Appendix A to Enclosure (5) of reference (g). This will be documented as required in each IDC training record in accordance with reference (g). The Executive Officer and Medical Department Representative (MDR) should review guidance for managing pregnant personnel in reference (e).

(3) Medical Examinations. Use established policy/procedures for a same sex third person/standby during medical examination of female patients.

c. Sponsor Program. A proactive sponsor program is required for all hands, regardless of gender, but is especially important for the new female officers. Previous experience in the surface force indicates consideration should be given to assigning married sponsors for these new female officers when feasible.

d. Welcome Aboard Packages. Any standard package sent by the ship to prospective gains should be identical for both men and women. Provided a good program is already in place, it may be necessary only to update policy statements/guides to ensure inclusion of equal opportunity, sexual harassment, fraternization, standards of conduct and other pertinent topics.

### 3. CREW TRAINING AND ORIENTATION

a. Crew Training. In preparation for the assignment of women, each selected command will conduct and document training for all hands. Pre-certification training will be scheduled as part of the POASM and conducted as outlined in subparagraph 3.a(1) below. Training will be conducted in two phases.

(1) Phase I (Pre-certification). Each command will ensure personnel have undergone training before certification on the topics listed below:

- (a) Fraternization/interpersonal relationships.
- (b) Navy's Equal Opportunity Policy.
- (c) Prevention of Sexual Harassment.
- (d) Sexual Assault and Rape Prevention.

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(2) Phase II (Post-certification). Phase II Training will be conducted on board through initial indoctrination (I-Division) and during additional GMT events after the arrival of women. I-Division training should be modified to include topics listed in subparagraph 3.a. (1). The Navy Pride and Professionalism (NP&P) Workshop is the primary vehicle for presenting indoctrination training and every crew member is required to participate. No additional gender specific training is required beyond the above listed training.

b. Command Climate Assessment

(1) A Command Climate Survey shall be conducted on each crew selected for integration between three and six months prior to the arrival of women.

(2) A second Command Climate Survey shall be conducted about six months, but no more than nine months, after embarkation.

c. Inventory of Applicable Instructions. Enclosure (4) lists pertinent references and training materials to assist the command in updating shipboard programs and documents.

d. Leadership Experience. Respective Submarine Groups will facilitate executive level training and seminars for the leadership teams of submarines to be integrated. Key leaders for each submarine crew to be integrated should make every effort possible to visit and/or embark on a gender integrated surface ship prior to the arrival of their female officers. This should include the Commanding Officer, Executive Officer, and Chief of the Boat at a minimum. Respective Group and Squadron Commanders will liaison with appropriate surface ship ISICs to facilitate these visits.

e. Spouse Orientation Program. Commanding Officers should brief all interested spouses on the integration plans. This brief can be either stand alone or as part of a regularly scheduled pre-deployment briefing.

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4. DETAILING POLICY AND INFORMATION

a. Detailing Phase

(1) Current plans for permanent assignment of women in submarines include only female officers. This includes female nuclear trained submarine warfare officers (117X/112X) and female supply officers (310Xs).

(2) Female officers will currently only be permanently assigned aboard OHIO Class submarines (both SSBNs and SSGNs). Submarines shall be recommended by their respective Group Commanders for integration of female officers based on a thorough review of the ship's schedule.

(3) All officer assignments will be managed through the Chief of Naval Personnel, PERS 42 and PERS 4412. The following precepts currently apply to officer assignments:

(a) All submarines to be integrated will be initially assigned at least three officers. This should consist of one warfare qualified supply officer and at least two 117X junior officers until a population of submarine warfare qualified women exists.

(b) All officers will be graduates of the Submarine Officers Basic Course (SOBC) prior to reporting aboard.

(c) Manning target for women officers on submarines will be 20 to 30 percent of wardroom manning.

b. Reporting Windows. The initial group of female officers is scheduled to complete SOBC in the fall of 2011. Each command will recommend arrival timing to their respective Group Commander no later than January 2011. The Group Commanders will provide a consolidated plan to PERS 42 and PERS 4412 no later than 15 February 2011 for order generation.

c. Sustained Population. The exact number of officers aboard each crew will vary, but, as a minimum, at least three female officers should be assigned to all gender integrated wardrooms.

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WIS	Responsibility	DATE DUE	PERCENT COMPLETE					REMARKS
			20	40	60	80	100	
IDC complete designated Additional Training	IDC							
Conduct training on fraternization	XO							
CMEQ training with the crew on sexual harassment, equal opportunity, and hazing	CMEQ							
Conduct training on the sexual assault prevention and response program.	XO							
CO/XO brief wardroom, CPD quarters, and crew on expectations and standards.	XO							
GMT on WIS and the way ahead	XO							
Train helms/pianesman on how to conduct female wakeups	COB							
Train entire crew on minimum dress policy	XO							
Train command team on proper Public Affairs guidance for WIS so they can properly answer questions when asked	XO							
Brief spouses on the integration of women policies and guidelines	CO/XO/COB							
IDC obtain new equipment/order AMAL augment.	IDC							
Designate stateroom(s) for female use	XO							
Ensure stateroom(s) lock(s) is/are in working order with enough keys	1st LT							
Work Request for officer head door porthole (if required)	3MC							
2L for sign for wardroom and watchstander head doors	3MC							
Change ship's instruction so only females can monitor female urinalysis and and sample cups for females are available.								

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Ensure all potentially offensive material is removed from ship	COB								
Install lock for WR and Watchstanders' head	1st LT								
Develop and institute a minimum dress policy.	COB								
Develop female IDC attendant policy	IDC								
Develop policy on how to do wakeups for women	XO/COB								
Develop and institute a shipboard policy on disposal of female hygiene products.	IDC/XO								
Coordinate with Repair Activity to build disposal location for female hygiene products in wardroom head	3MC								
ID/Assign sponsors/send welcome aboard materials	XO								
Scan LAN for offensive material	ITC								
Conduct initial command climate survey	XO								
Conduct follow-up command climate survey after first mission/patrol	XO								
Process to feedback ongoing lessons learned to command.									
Meet with senior female once a week.	XO								
Squadron and commands identify primary points of contact for Women In Subs Program	SQNS/commands								
Command Team visit gender integrated surface ships	XO								
CSG-9/10 certify command for integration of woman onboard	CSG-9/10								
Lessons learned provided to CoC	XO								
Verify CMEO and SAPR are identified in writing and fully trained	XO								
Verify CMEO and SAPR guidance posters are displayed	XO								
Post command policy on EO and sexual harassment	XO								

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## CHECKLIST FOR CERTIFICATION

NR	CHECKLIST	S/U/N
1	POA&M developed, reviewed, published.	
2	Command instructions consistent with Navy Policy.	
3	All applicable references readily available.	
4	Wardroom head has proper privacy including the ability to lock from the inside. An appropriate Male/Female or (Occupied/ Unoccupied for Watchstander's Head) sign is in place.	
5	The Watchstander's Head is lockable from the inside and has the proper privacy.	
6	Receptacles installed in Wardroom and Watchstander heads for disposal of personal hygiene items.	
7	Augmented AMAL in place.	
8	Required training attended by all hands.	
9	Command Assessment Team POA&M for conducting required command climate surveys reviewed.	
10	A command required reading program implemented. (Optional)	
11	Spouse Orientation Program implemented.	
12	Review ship's instructions on equal opportunity, sexual harassment, prevention of sexual assault, and interpersonal relationships.	
13	IDC has documented completion of required clinical training.	
14	General Military Training schedule reviewed and updated to include women at sea issues and CNO priority items.	
15	Navy instructional videos onboard concerning sexual harassment, pregnancy policy, etc. (Recommended)	
16	Officer Training and watchstander specific items concerning women at sea incorporated into Long Range Training Plan. (Recommended)	
17	CMEO and SAPR collateral duties appointed and designated in writing. CMEO and SAPR trained at required schools.	

Enclosure (3)

INVENTORY OF INSTRUCTIONS

SECNAVINST 1300.12C	ASSIGNMENT OF WOMEN IN THE DEPARTMENT OF THE NAVY
OPNAVINST 1300.17A	ASSIGNMENT OF WOMEN IN THE NAVY
OPNAVINST 1740.4D	U.S. NAVY FAMILY CARE POLICY
SECNAVINST 5300.26D	DEPARTMENT OF THE NAVY POLICY ON SEXUAL HARASSMENT
SECNAVINST 5350.16A	EQUAL OPPORTUNITY WITHIN DEPARTMENT OF THE NAVY
OPNAVINST 5354.1F	NAVY EQUAL OPPORTUNITY POLICY
SECNAVINST 5354.2	DEPARTMENT OF THE NAVY EQUAL OPPORTUNITY, EQUAL EMPLOYMENT OPPORTUNITY, AND DIVERSITY OVERSIGHT
OPNAVINST 5370.2C	NAVY FRATERNIZATION POLICY
OPNAVINST 6000.1C	NAVY GUIDELINES CONCERNING PREGNANCY AND PARENTHOOD
SECNAVINST 5211.5E	DEPARTMENT OF THE NAVY (DON) PRIVACY ACT (PA) PROGRAM
OPNAVINST 1752.1B	SEXUAL ASSAULT VICTIM INTERVENTION (SAVI) PROGRAM
SECNAVINST 1752.4A	SEXUAL ASSAULT PREVENTION AND RESPONSE (SAPR) PROGRAM
NAVY REGS ART 1165	FRATERNIZATION POLICY
NAVY REGS ART 1166	SEXUAL HARASSMENT/EQUAL OPPORTUNITY
OPNAVINST 6110.1H	PHYSICAL READINESS PROGRAM
SECNAVINST 5527.2	INVESTIGATION OF SEXUAL MISCONDUCT WITHIN THE DEPARTMENT OF THE NAVY
OPNAVINST 5720.2M	EMBARKATION IN U.S. NAVAL SHIPS
OPNAVINST 3120.32C	STANDARD ORGANIZATION AND REGULATIONS OF THE U.S. NAVY
NAVY REGS ART 1164	EQUAL OPPORTUNITY AND TREATMENT
NAVY UNIFORM REGS	GROOMING, APPEARANCE, AND UNIFORM STANDARDS FOR BOTH MEN AND WOMEN

Enclosure (4)

## APPENDIX C. NAVADMINS ON ENLISTED INTEGRATION

UNCLASSIFIED/  
ROUTINE  
R 211425Z JAN 15 PSN 507838H31  
FM CNO WASHINGTON DC  
TO NAVADMIN  
INFO CNO WASHINGTON DC  
BT  
UNCLAS  
NAVADMIN 019/15  
SUBJ/OPENING SUBMARINE FORCE BILLETS TO ENLISTED WOMEN//  
MSGID/GENADMIN/CNO WASHINGTON DC/N1/JAN//

RMKS/1. In July 2014, the Secretary of the Navy approved an integration plan to open to all women previously closed ratings and Navy Enlisted Classification (NEC) codes in the submarine force. This plan includes the opportunity for all enlisted female Sailors of ranks E-1 to E-8 and all ratings to request a conversion to serve in the submarine force.

2. The integration of female enlisted Sailors will follow the successful integration of female officers aboard submarines in a similar manner. Initially, Sailors will be selected and trained for rating conversion to serve aboard SSGNs and SSBNs previously integrated with female officers. The first two crews will be integrated in 2016, with an additional two to four crews added each year through 2021. Phase two of the plan will integrate enlisted female Sailors aboard new construction VIRGINIA -class SSNs in approximately 2020.

### 3. Eligibility.

a. E-7/8. Chief Petty Officers (CPOs) with the following ratings will be eligible to request assignment aboard submarines:

IT/YN/CS/LS/HM(IDC). These CPOs will be the first enlisted women assigned to integrated crews and will arrive in sufficient time to fully integrate into the crew prior to junior personnel arriving. CPOs with these ratings will be chosen to bring their current expertise and leadership skills aboard submarines quickly, which will be essential in the follow-on integration of junior female Sailors. CPOs will be selected from these ratings for conversion and assignment in submarines until their important leadership role can be filled by the normal advancement process inside the submarine force. Following selection, CPOs will attend basic enlisted submarine school and any necessary rate-specific training prior to being assigned to their first submarine. Details on the application and selection process will be provided in a separate NAVADMIN (FY16 ENLISTED WOMEN IN SUBMARINES CHIEF PETTY OFFICER CONVERSION PROCESS).

b. E-6 and below Sailors with an assigned rating. All E-6 and below female Sailors are eligible to apply for rating conversion into one of the following submarine ratings: STS/FT/MMW/MT/ITS/ET-NAV/ET - COM/LS/YN/CS/MMA.

Each Sailor selected for conversion will attend basic enlisted submarine school followed by "A" and "C" schools, as needed, based on their selected rating and expertise. Details on the application and selection process will be provided in a separate NAVADMIN (FY16 ENLISTED WOMEN IN SUBMARINES E-6 AND BELOW RATING CONVERSION PROCESS).

c. New recruits and Sailors without an assigned rating. Female recruits and female Sailors who have not yet selected a rating are eligible to apply for training and assignment in the following ratings: STS/FT/MMW/MT/ITS/ET-NAV/ET-COM/LS/YN/CS/MMA/EMN/MMN/ETN/MMN-ELT. Following assignment, these Sailors will complete the same training pipeline as their male counterparts. Sailors serving in the fleet who have not yet selected a rating may apply per NAVADMIN (FY16 ENLISTED WOMEN IN SUBMARINES E-6 AND BELOW RATING CONVERSION PROCESS). Specific guidance for Navy Recruiters will be provided SEPCOR from Navy Recruiting Command.

d. Nuclear Trained Sailors. Female Sailors in the nuclear training pipeline or serving as junior staff instructors at a Nuclear Power Training Unit (NPTU) should contact their Command Career Counselors for details on how to apply for submarine service. Specific guidance for Navy Recruiters will be provided SEPCOR from Navy Recruiting Command.

4. To support the integration of submarine crews, ships that will have enlisted women onboard will be modified to ensure conditions meet Navy guidelines for habitability and privacy while maintaining equity for male and female Sailors embarked in submarines.

5. More information on the opportunities available and the benefits of service in the submarine force is available via the NPC website at <http://www.public.navy.mil/bupers-npc/enlisted/community/submarine/pages/enlistedwomeninsubmarines.aspx>. This information will also be provided during visits to Navy homeports by detailers and Enlisted Community Managers (ECMs).

a. Non-nuclear Sailors, Command Career Counselors, and commands may also contact the submarine non-nuclear ECM office: LCDR [name removed], 901-874-2082; STSCS(SS) [name removed], 901-874-4367; YNC(SS) [name removed], 901-874-2819.

b. Nuclear-trained Sailors, Command Career Counselors, and commands may contact the nuclear ECM office: LCDR [name removed], 703-604-5493; ETCM(SW) [name removed], 703-604-5492.

6. Released by Vice Admiral [name removed].//

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UNCLASSIFIED/  
ROUTINE  
R 211528Z JAN 15 PSN 506841H24  
FM CNO WASHINGTON DC  
TO NAVADMIN  
INFO CNO WASHINGTON DC  
BT  
UNCLAS

NAVADMIN 020/15

SUBJ/FY16 ENLISTED WOMEN IN SUBMARINES CHIEF PETTY OFFICER CONVERSION//

MSGID/GENADMIN/CNO WASHINGTON DC/N1/JAN//  
REF/A/MSG/CNO WASHINGTON DC/N1/211425ZJAN15//  
REF/B/DOC/BUMED/21FEB96//  
NARR/REF A IS NAVADMIN 019/15, OPENING SUBMARINE FORCE BILLETTS TO ENLISTED  
WOMEN. REF B IS BUMED MANUAL FOR MEDICINE.

RMKS/1. Per reference (a), the Navy's plan to integrate enlisted women into the submarine force has been approved, and all submarine ratings and submarine Navy Enlisted Classification (NEC) codes are open to enlisted women.

2. The submarine force is seeking high caliber female Chief Petty Officers (CPOs) from the ratings listed below to apply for submarine service as part of this initiative. The Submarine Enlisted Community Manager (ECM) is accepting conversion applications for ranks E-1 through E-8. The application process for E-6 and below is contained in a separate NAVADMIN (FY16 ENLISTED WOMEN IN SUBMARINES E-6 AND BELOW RATING CONVERSION PROCESS).

3. In an effort to identify the most qualified Chief Petty Officers (CPOs) and to ensure the success of this initiative, CPOs will be selected based on the following attributes:

- a. CO's endorsement describing the Sailor's sustained superior performance.
- b. Sea service experience.
- c. Warfare qualification.
- d. Job experience (i.e., assignments that can be related to success in future submarine service).

4. In addition to sustained superior performance and future potential of the Sailor, consideration will be given to current overall manning of the applicant's rating, time served at the current command, and other factors that may affect the command or community's manning.

5. Selected CPOs are expected to report aboard and lead a division with minimal additional technical and leadership training. The application process for E-7/8 in the Information Systems Technician (IT) (see note 1 below), Logistics Specialist (LS), Culinary Specialist (CS), Yeoman (YN) (see note 2 below), and Independent Duty Corpsman is as follows:

a. All conversion CPOs, regardless of rating or rank, must meet the following minimum criteria to be eligible for conversion:

(1) Must be medically screened and suitable for duty aboard a submarine per reference (b), MANMED Chapter 15 (to be completed within 30 days following selection).

- (2) Must be a U.S. citizen already in possession of, or capable of receiving, a secret security clearance.
- (3) No non-judicial punishments (NJP) or convictions in civilian or military courts for past 36 months.
- (4) No marks less than '3.0' on the last five evaluations.
- (5) No PFA failures in the last three years.

Note 1: CPO IT conversions must have one or more of the following NECs: 2780, 2781, or 2791.

Note 2: CPO Personnel Specialists (PS) who have the required experience to convert to YN submarines may submit applications for consideration.

b. Active duty and Full Time Support (FTS) reserve duty CPOs must submit conversion packages directly to the submarine non-nuclear ECM (BUPERS-32D) for processing per para 5 below.

c. Each conversion package must include the following:

- (1) Last five performance evaluations.
- (2) PRIMS data covering the last four years of PFA information.
- (3) NAVPERS 1306/7 signed by the CPO and the CPOs CO that clearly states the recommended 'earliest and latest release' dates from the current command.
- (4) Official statement volunteering for submarine service as outlined in MILPERSMAN 1306-402.
- (5) COs endorsement.
- (6) The applicant may submit (optional) a personal statement addressing her motivation for assignment to the submarine force.

d. Reserve component Sailors will submit packages per MILPERSMAN 1326-021.

6. Applications must be scanned and emailed to the submarine non-nuclear ECM. Email applications to [name removed] (at)navy.mil, [name removed] (at)navy.mil, and [name removed] (at)navy.mil.

a. An example package is available on the NPC website at:

<http://www.public.navy.mil/bupers-npc/enlisted/community/submarine/pages/enlistedwomeninsubmarines.aspx>.

b. Applications are due by 15 April 2015, and the selection process will begin on 16 April 2015.

7. CPOs requesting conversion to submarines will be selected via a selection panel. Once final selections are made for E-7/8 by the submarine conversion selection panel, primary and alternate selectees will be notified via naval message. Alternates will be utilized in the event a selectee is found ineligible for conversion.

8. This round of selections will apply to the women scheduled to integrate the first two submarine crews. Subsequent NAVADMINs announcing follow-on submarine integrations will be periodically released to commence future application cycles. Opportunities to reapply for assignment in submarines will be available at least annually.

9. For questions about the application process or about submarine service, contact the submarine non-nuclear ECM office: LCDR [name removed], 901-874-2082; STSCS(SS) [name removed], 901-874-4367; YNC(SS) [name removed], 901-874-2819.

10. This message will remain in effect until superseded or canceled, whichever occurs first.

11. Released by Vice Admiral [name removed].//

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ROUTINE  
R 211645Z JAN 15 PSN 507807H27  
FM CNO WASHINGTON DC  
TO NAVADMIN  
INFO CNO WASHINGTON DC  
BT  
UNCLAS

NAVADMIN 021/15

SUBJ/FY16 ENLISTED WOMEN IN SUBMARINES E-6 AND BELOW RATING CONVERSION  
PROCESS//

MSGID/GENADMIN/CNO WASHINGTON DC/N1/JAN//  
REF/A/MSG/CNO WASHINGTON DC/N1/211425ZJAN15//  
REF/B/MSG/CNO WASHINGTON DC/N1/211528ZJAN15//  
REF/C/DOC/BUMED/21FEB96//  
NARR/REF A IS NAVADMIN 019/15, OPENING SUBMARINE FORCE BILLETTS TO ENLISTED  
WOMEN. REF B IS NAVADMIN 020/15, FY16 ENLISTED WOMEN IN SUBMARINES CHIEF  
PETTY OFFICER CONVERSION PROCESS. REF C IS BUMED MANUAL FOR MEDICINE.

RMKS/1. Per reference (a), the Navy's plan to integrate enlisted women into the submarine force has been approved, and all submarine ratings and submarine Navy Enlisted Classification (NEC) codes are open to enlisted women.

2. The submarine force is seeking high caliber female applicants from all ratings. Sailors from all communities are eligible to apply for submarine service as part of this initiative. Per this NAVADMIN and reference (b), the Submarine Enlisted Community Manager (ECM) is accepting conversion applications for ranks E-1 through E-8. The application process for E-7/8 is outlined in reference (b).

3. Female recruits interested in submarine nuclear duty will be selected as part of the normal recruiting process. Female Sailors in the nuclear training pipeline or serving as junior staff instructors (JSIs) at a Nuclear Power Training Unit (NPTU) should contact their Command Career Counselors for details on how to volunteer for submarine service.

4. In an effort to identify the most qualified Sailors and to ensure the success of this initiative, Sailors will be selected based on the following attributes:

- a. COs endorsement describing the Sailor's sustained superior performance.
- b. Sea service experience.
- c. Warfare qualification.
- d. Job experience (i.e., assignments that can be related to success in future submarine service)

5. In addition to sustained superior performance and future potential of the Sailor, consideration will be given to current overall manning of the applicant's rating, time served at the current command, and other factors that may affect the command or community's manning.

6. Application process for E-6 and below (non-nuclear trained personnel).

a. All conversion Sailors, regardless of rating or rank, must meet the following minimum criteria to be eligible for conversion:

(1) Must be medically screened and suitable for duty aboard a submarine per reference (c), MANMED Chapter 15 (to be completed within 30 days following selection).

(2) Must be a U.S. citizen already in possession of, or capable of receiving, a secret security clearance.

(3) Must meet ASVAB requirements for the desired rating(s) as outlined in MILPERSMAN 1306–618.

(4) No non-judicial punishments (NJP) or convictions in civilian or military courts for the past 36 months.

(5) No marks less than ‘3.0’ on the last five evaluations.

(6) No PFA failures in the last three years.

b. Active duty and Full Time Support (FTS) reserve duty Sailors must submit conversion packages directly to the submarine non-nuclear ECM (BUPERS-32D) for processing per para 7 below. Submarine ratings open for conversion are: Sonar Technician (STS), Fire Control Technician (FT), Machinist Mate-Weapons (MMW), Missile Technician (MT), Information Systems Technician (ITS) (see note 1), Electronics Technician -Navigation (ET-NAV), Electronics Technician-Communications (ET-COM), Logistics Specialist (LS), Culinary Specialist (CS), Yeoman (YN), and Machinist Mate-Auxiliary (MMA). Each conversion package must include the following:

(1) Last five performance evaluations. (Sailors with minimal service may not have five evaluations submit as many as the Sailor has on record.)

(2) PRIMS data covering at least the last four years of PFA information, if available.

(3) ASVAB scores.

(4) NAVPERS 1306/7 signed by the Sailor and the Sailor’s CO identifying the Sailor’s top three submarine rating conversion choices and clearly stating the recommended ‘earliest and latest release’ dates for the current command.

(5) Official statement volunteering for submarine service as outlined in MILPERSMAN 1306–402.

c. Non-FTS reserve duty Sailors will submit packages per MILPERSMAN 1326–021.

Note 1: Information Systems Technician (IT) direct conversions must have one or more of the following NECs: 2780, 2781, or 2791.

7. Applications must be scanned and emailed to the submarine non-nuclear ECM. Email applications to [name removed] (at)navy.mil, [name removed] (at)navy.mil, and [name removed] (at)navy.mil.

a. An example package is available on the NPC website at: <http://www.public.navy.mil/bupers-npc/enlisted/community/submarine/pages/enlistedwomeninsubmarines.aspx>.

b. Applications are due by 15 April 2015, and the selection process will begin on 16 April 2015.

8. Application process for E-6 and below (nuclear-trained personnel).

The application process for E-6 and below nuclear-trained personnel will be coordinated by the individual Sailor’s Command Career Counselor at the NPTUs. Female JSIs or Sailors in initial training at NPTU interested in volunteering for submarine duty should inform their chain of command. The chain of command at NPTU will develop an application package on each submarine volunteer that includes the following:

a. Last five performance evaluations. (Sailors with minimal service may not have five evaluations submit as many as the Sailor has on record.)

b. PRIMS data covering at least the last four years of PFA information, if available.

c. Official statement volunteering for submarine service as outlined in MILPERSMAN 1306–402.

d. Grades and class rank at Nuclear Field “A” school, Nuclear Power School, and NPTU.

e. Written recommendation and endorsement for the Sailor from the chain of command.

f. For JSIs qualifications obtained at NPTU. The CO of each NPTU will forward this information, along with the two ranked lists (JSI ranking and initial trainee ranking) of applicants, to the nuclear ECM at OPNAV N133.

9. Once final selections are made for E-6 and below Sailors by the ECM, selectees will be notified via naval message. Alternates will be utilized in the event that a selectee is found ineligible for conversion.

10. This round of selections will apply to the women scheduled to integrate the first two submarine crews. Subsequent NAVADMINs announcing follow-on submarine integrations will be periodically released to commence future application cycles. Opportunities to reapply for assignment in submarines will be available at least annually.

11. For questions about the application process or about submarine service, contact the submarine non-nuclear ECM office: LCDR [name removed], 901-874-2082; STSCS(SS) [name removed], 901-874-4367; YNC(SS) [name removed], 901-874-2819. Nuclear-trained Sailors may contact the nuclear ECM office: LCDR [name removed], 703-604-5493; ETCM(SW) [name removed], 703-604-5492.

12. This message will remain in effect until superseded or canceled, whichever occurs first.

13. Released by Vice Admiral [name removed].//

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## **APPENDIX D. INTERVIEW GUIDE**

### **Introduction**

We are interested in capturing the complete story of your experience as one of the first female submariners. We are interested in hearing your narrative and opinions from your individual perspective. We would like to hear of your motivations, experiences, thoughts, perceptions and musings—if it was interesting, amusing, confusing, touching or frustrating—we would like to hear the story.

Thus, we will ask you to tell us your story and to share specific examples. We have prepared questions to help draw out your story, but please feel free to tell us in whatever order or pace makes sense to you.

### **Background**

- Please tell us (the story of) how you came to join the Navy?
- Did you intend the Navy as full career or single term decision?
- Undergraduate degree?

### **Initial Considerations**

- Please describe or tell us the story of how you came to consider the Submarine Force?

### **Possible probes**

- What specific experiences contributed to your interest? How?
- How did other people inspire your decision? What was their role in your life (in other words, who were they, without giving us names)?
- Describe your interactions or experiences with other submariners that might have influenced your interest.

### **Expectations**

- Before the assignment, what was your perception of the Submarine Force in general?
  - What excited you about the prospect?
  - What worried you about the prospect?
- What impacts did you want to make initially?
- Did you expect to be treated differently? If so, how?
- How did you expect the assignment to impact your life and career?
  - Work-life balance? Advancement? Socially?
- How did you expect to manage any conflicts?

### **Prior to Arrival on Boat**

Tell us the story of your experience prior to arrival on the boat; begin with how you were selected and then describing what happened after that.

**Possible probes**

- How were you selected to the program?
  - Solicited? Volunteered?
  - Approval process?
- What was your experience of training? What happened?
- What unexpected requirements or experiences developed based on the new gender?
  - Other organization's preparations?
  - Paperwork you expected/didn't expect
  - Inputs you had to give?
- Please tell us a story of an event or organization/person that was particularly assistive.
- Please tell us a story of an event or organization/person that was combative.

**Reporting Onboard**

- Tell me about your first experiences upon reporting to your first submarine.
- Culture includes assumptions about the way things are done, how people should interact and what is important. We often see culture through behaviors and also symbols that are displayed and the stories people tell. Describe the culture of the submarine when you first arrived.
- What barriers or challenges did you face initially and how did you deal with them?
- Possible probes
  - Initially, what types of accommodation did people make, if any?
  - Was there a "warming up" period? Blatant opposition or acceptance?

**Remainder of Assignment**

- After your initial arrival, tell us about the significant milestones of your experience. What events stick in your memory?
- What significant roles did you address or fill as a crewmember?
- What people or events most influenced your experience? How?
- What conflicts existed? What were the keys to overcoming those conflicts?
- Tell us about any awkward, touching or learning experiences. What people or events played a role?

**Personal Experiences**

- How did your experience compare with your expectations? What was as expected, what was different?
- How did your perspective about the assignment and/or behavior change over time? What events or people influenced this change?
- How has this experience influenced you? (career and life)
- What would you have done or thought differently, given what you know now?
  - Would you have evaluated your choices differently, given what you know now?

**Recommendations**

- What resources or policies best supported your experience and integration?
- How did leaders or the organizations you worked for support your integration?
- What hindered your integration?
- What benefits do you attribute to integration?
- Do you have any suggestions on how the Navy could improve the recruitment and training process for you?
  - Was it adequate?
  - Did it prepare you?
  - Was there anything that would have been helpful to add? Change?
  - Any integration oriented training?
- What suggestions do you have for how the Navy could improve the work experience for you?

**Administrative/Demographic Questions:**

- What is your marital status?
- How long have you been in the Navy?
- What is your rank? Or specialty? Assignments on board?

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## **APPENDIX E. AUTHOR BIOGRAPHIES**

### **A. LCDR KRYSTEN J. ELLIS, SC, USN**

LCDR Krysten J. Ellis was born in Knoxville, TN. She graduated from Auburn University in 2003 with a Bachelors of Civil Engineering (Suma Cum Laude). Her first tour was as an instructor at Nuclear Power School in August 2003, teaching Enlisted Reactor Principles and Mathematics, as well as running the Multimedia training division. After her lateral transfer and graduation from Navy Supply Corps School in August 2007, she reported to USS Bonhomme Richard (LHD 6) as the Sales Officer. Bonhomme Richard conducted a Western Pacific deployment, Rim of the Pacific joint exercise, INSURV and Supply Management Inspection.

In February 2009, LCDR Ellis reported to the forward deployed logistics ship, USNS Richard E. Byrd (T-AKE 4), serving as the Assistant Officer in Charge and the Operations Officer. During her tour, the ship successfully completed Pacific Partnership 2009 in the South Pacific and provided fuel, ammo and stores logistical support to C7F operating vessels, including multiple ESGs/BSGs. In March 2010, she reported to Special Boat Team 20 as the Supply Officer, where she excelled as the Budget Officer, supporting special operations in support of USCENTCOM, USEUCOM, USPACOM, USNORTHCOM, USSOUTHCOM and USAFRICOM. In November 2011, LCDR Ellis reported as Supply Officer of USS Georgia Gold (SSGN 729) in Kings Bay, Georgia, which conducted, Find, Fix and Finish operations as part of a Joint Task Force. After qualifying in submarines in April 2013, she reported as Supply Officer of USS Wyoming Gold (SSBN 742), to fulfill a gapped billet in support of the Women in Submarines initiative. Wyoming conducted one patrol during her tenure.

In November 2013, LCDR Ellis reported to Naval Postgraduate School in Monterey, CA, to study Contract and Acquisition Management. She resides in Monterey, CA. Her personal awards include three Navy Commendation medals and two Navy and Marine Corps Achievement medals.

**B. LT GAROLD I. MUNSON, USN**

LT Munson was born in Peoria, Illinois, in April of 1980. Shortly after, his family moved to the small mountain town of Georgetown, Colorado where he lived until enlisting in the Navy in the summer of 2000. Following completion of the Sonar Technician training pipeline in 2001, he moved to Washington State and reported aboard his first submarine, USS Michigan (SSBN 727). Garold served as a member of the sonar division and, after attaining the rank of First Class Petty Officer, as the Lead Petty Officer of the Centralized Work Control Team during the Engineering Refueling Overhaul and SSGN conversion of the Michigan. During his time in the shipyard, he also served aboard USS Nebraska (SSBN 739) as a Sonar Supervisor in support of an unmanned sonar division. In 2005, he applied and was accepted into the Seaman to Admiral enlisted to officer accession program and transferred in 2006 to commence full time undergraduate study at the University of Colorado Boulder.

LT Munson graduated with honors in December 2008 with a BA in economics and was commissioned as a submarine designated line officer. Following completion of Navy nuclear training school and the Submarine Basic Officer Course he again traveled to Washington and reported to USS Nevada SSBN 733 as a division officer. On Nevada, LT Munson served as the Reactor Controls Officer, Tactical Systems Officer, and assistant Engineer. During his division officer tour, LT Munson was awarded two Navy and Marine Corps Achievement Medals, the Navy Commendation Medal, and was selected as the Submarine Squadron 17 Junior Officer of the Year for 2013.

In November 2013, LT Munson transferred from Nevada and reported to the Naval Postgraduate School in Monterey, CA, to begin graduate study in the MBA financial management program. He currently resides in Monterey with his wife.

## APPENDIX F. INTERVIEW SUMMARY SHEET

Interview Summary Sheet			
<b>Interview #</b>			
<b><u>Job</u></b>		<b>Notes</b>	
Nuc	<input type="checkbox"/>		
Chop	<input type="checkbox"/>		
<b><u>Status</u></b>			
Married	<input type="checkbox"/>		
Mill-Mill	Y / N		
Single	<input type="checkbox"/>		
<b><u>School</u></b>		<b>Notes</b>	
Academy	<input type="checkbox"/>		
ROTC	<input type="checkbox"/>		
OCS	<input type="checkbox"/>		
Technical	<input type="checkbox"/>		
Non Tech.	<input type="checkbox"/>		
<b><u>Parents</u></b>		<b>Mom</b>	
Navy	<input type="checkbox"/>		
Army	<input type="checkbox"/>		
Marines	<input type="checkbox"/>		
Air Force	<input type="checkbox"/>		
Other	<input type="checkbox"/>	<b>Dad</b>	
<b><u>Siblings</u></b>			<b>Brother</b>
Navy	<input type="checkbox"/>		
Army	<input type="checkbox"/>		
Marines	<input type="checkbox"/>		
Air Force	<input type="checkbox"/>		
Other	<input type="checkbox"/>	<b>Sister</b>	
<b><u>Motivation</u></b>			<b>Notes</b>
Career	<input type="checkbox"/>		
College	<input type="checkbox"/>		
Experience	<input type="checkbox"/>		
Patriotism	<input type="checkbox"/>		
Family	<input type="checkbox"/>		
<b><u>Duration</u></b>		<b>Notes</b>	
Single Term	<input type="checkbox"/>		
Career	<input type="checkbox"/>		
Undecided	<input type="checkbox"/>		
<b><u>Desired Job (prior)</u></b>		<b>Notes</b>	
SWO	<input type="checkbox"/>		
SWO Nuc	<input type="checkbox"/>		
Subs	<input type="checkbox"/>		
Aviation	<input type="checkbox"/>		
Supply	<input type="checkbox"/>		
Other	<input type="checkbox"/>		
Undecided	<input type="checkbox"/>		

## Interview Summary Sheet

### Subs motivation

MIDN cruise ☐  
 People/Crew ☐  
 Family ☐  
 Encouraged by... ☐  
 Mission ☐  
 Other ☐

### Notes

### Nuc School

Charleston ☐  
 NY ☐  
 Typical path Y / N

### Notes

### Sub

SSBN ☐  
 SSGN ☐  
 East ☐  
 West ☐

### Notes

### Themes

1. Theme ☐  
 2. Theme ☐  
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 11. Theme ☐  
 12. Theme ☐  
 13. Theme ☐  
 14. Theme ☐  
 15. Other ☐

### Notes

### Overall experience

Excellent ☐  
 Good ☐  
 Neutral ☐  
 Poor ☐

### Notes

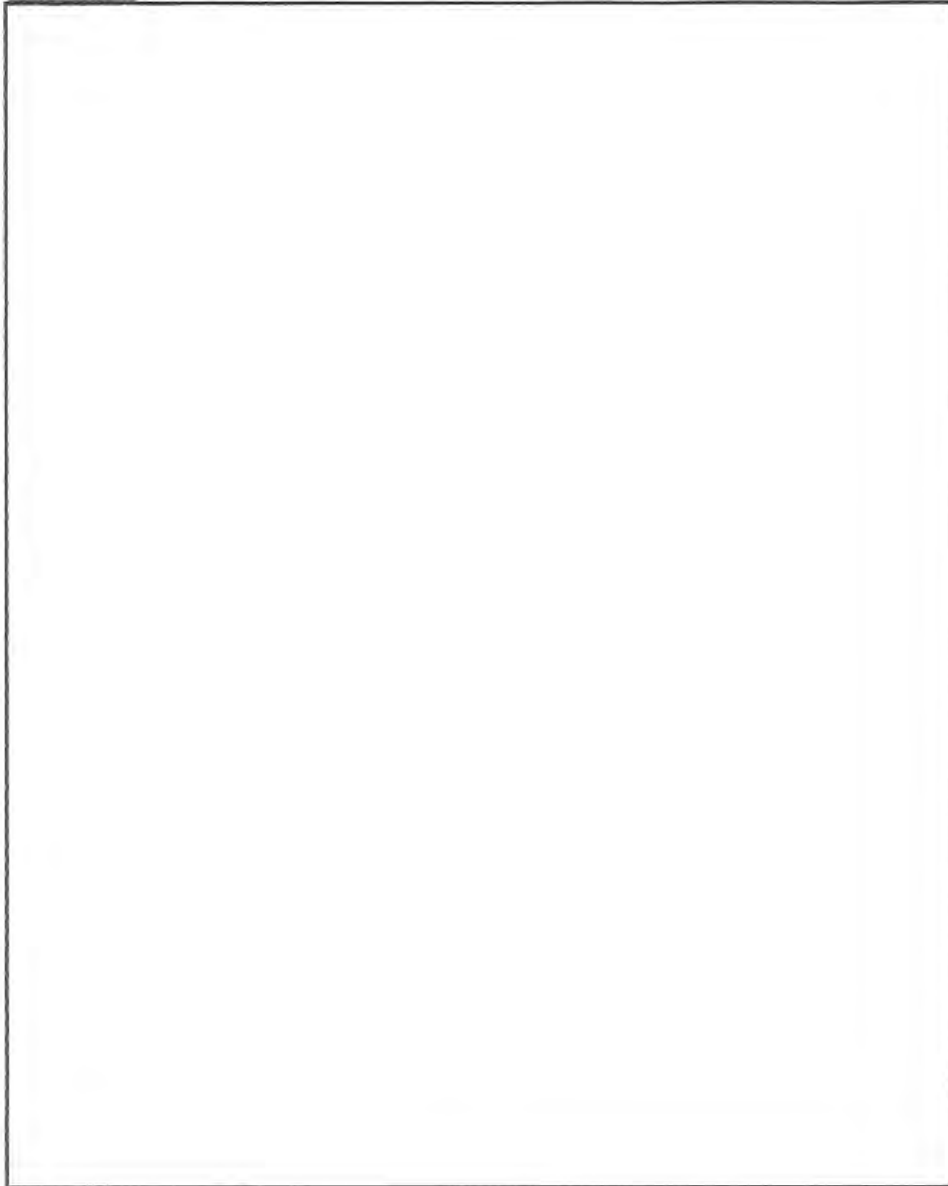
### Retention

Contracted ☐  
 Getting out ☐  
 Lat transfer ☐  
 Undecided ☐

### Notes

Interview Summary Sheet

Additional Notes

A large, empty rectangular box with a black border, intended for additional notes. It occupies the majority of the page below the 'Additional Notes' header.

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